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# The Northern Forest Forum

*Working for Sustainable Natural & Human Communities*

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Mud Season 1995

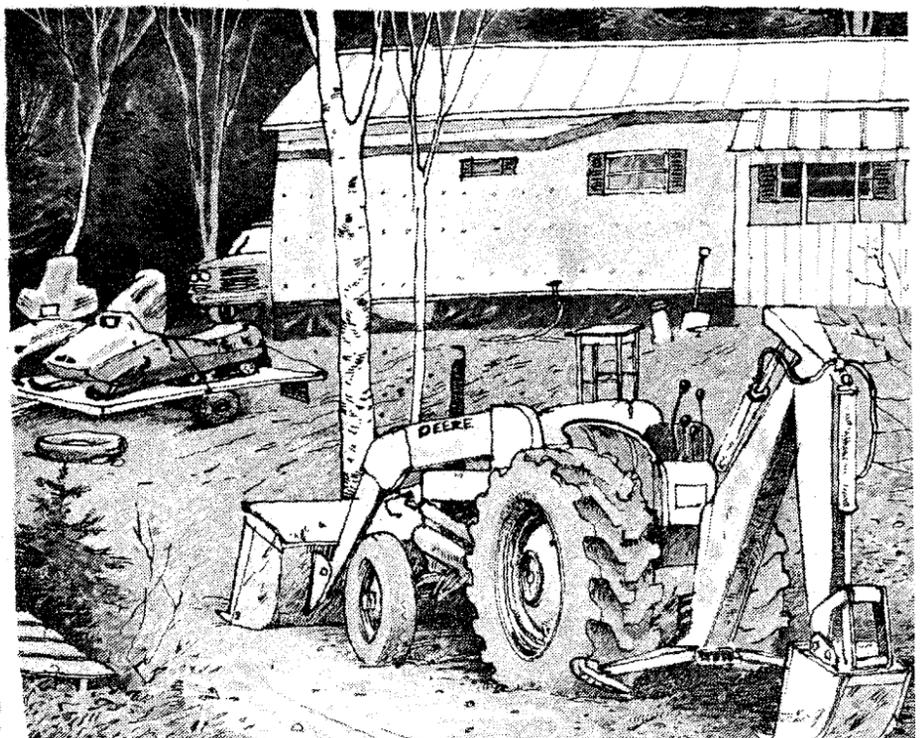
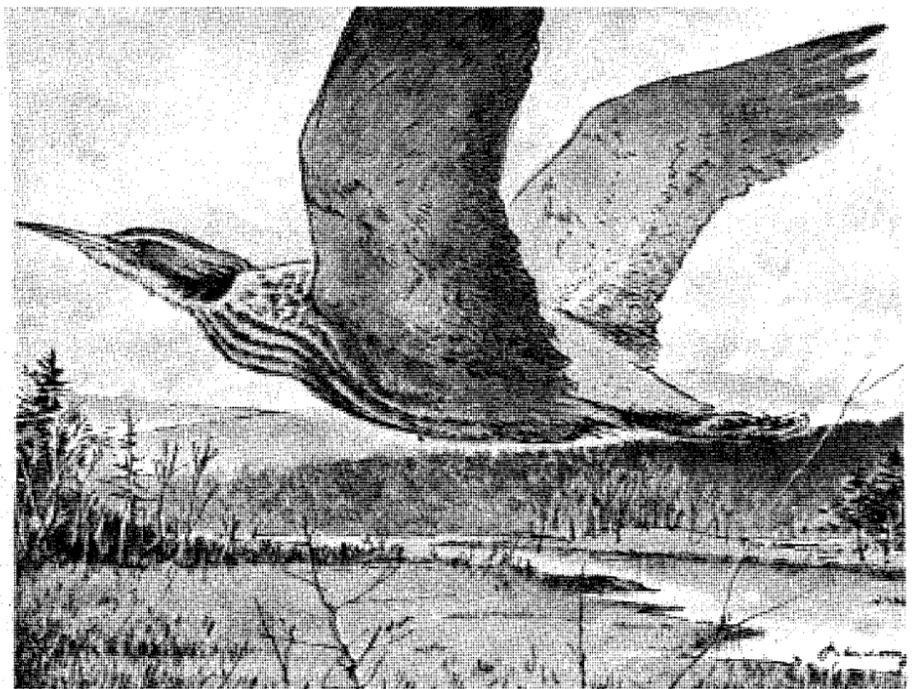
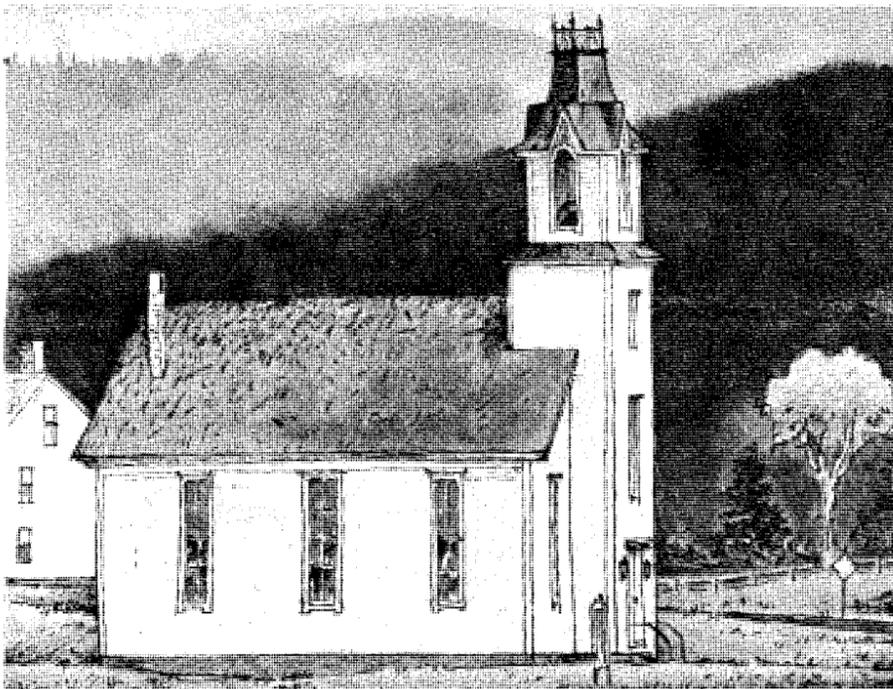
Volume 3 No. 4

## Industry, Politicians Collude to Undermine Environmental Protection

➤ *Maine Commission to Bail out Paper Industry Urges Less Taxes & Regs, More Subsidies*

➤ *Vermont Snubs Public Participation in Formulation of Forest Policy*

➤ *Will New Governor's Appointees Give Adirondack Park to Developers?*



Also Inside: ➤ *Clearcutting for Biodiversity - Mitch Lansky Explains How* ➤ *Wilderness Protection for Nova Scotia*  
➤ *Grassroots Conservation Monitoring* ➤ *The Contract on America & the Failure of Mainstream Environmentalism*

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# Mainstream Environmentalism & The Emperor's New Clothes

"The big corporations, our clients, are scared s—less of the environmental movement. They sense that there's a majority out there and that the emotions are all on the other side—if they can be heard. They think the politicians are going to yield to the emotions. I think the corporations are wrong about that. I think the companies will have to give in only at insignificant levels. Because the companies are too strong; they're the establishment. The environmentalists are going to have to be like the mob in the square in Romania before they prevail."

—Frank Mankiewicz, executive of Hill & Knowlton, a firm specializing in public relations for the largest corporations. Quoted in William Greider, *Who Will Tell the People? The Betrayal of American Democracy*.

Year after year, in poll after poll, the American public says the same thing—PROTECT THE ENVIRONMENT! Consider these polls cited by Greider:

- "Sometimes the laws that are designed to protect the environment cause industries to spend more money and raise their prices. Which do you think is more important: protecting the environment or keeping prices down?" 80% chose environmental protection; only 13% chose keeping prices down. (*The Wall Street Journal/NBC Poll Spring 1990*)
- "We must protect the environment even if it means increased government spending and higher taxes." 71% agree; 25% disagree. (*New York Times, Spring 1990*)
- Protecting the environment comes first "even if it means jobs in the local community are lost." 56% agreed; 36% disagreed (*NYT, Spring 1990*)

Today, the anti-environmental extremists of the Republican Party are hell-bent on dismantling all environmental protections as part of the fine-print (often written in invisible ink) of the Contract on America.



In the Northern Forest region, Maine's governor and legislature—recipients of large campaign contributions from the timber industry—feverishly work to gut environmental protection and give the wealthy corporations even greater tax breaks. (See pages 4 and 6-9) In Vermont, the legislature and the Commissioner of Forests and Parks work to marginalize public participation in the formulation of forest practices policy. (See pages 5 and 10-11) In the Adirondacks, the new Commissioner of the DEC wants to privatize "Forever Wild" State Forests. (See pages 12-14)

Most galling of all, this assault on statutes, regulations, and agencies that are supposed to protect the health of both natural and human communities is clothed in the language of populism, even though the multinationals and the wealthiest citizens will be the beneficiaries, while the rest of us pay with our health, with a more degraded life support system, and with higher taxes.

## Why are we allowing this to happen? Who is to blame?

From the beginning of our nation's history, politicians have skillfully exploited lower class energy and anger to serve the interests of the upper classes and corporations. This deception works because it plays off genuine lower and middle class grievances. The "populism" of the Contract on America has brilliantly masked the real intent of the Contract—to dismantle government's ability to reign in the excesses of the corporations.

But, should we blame the cynical politicians and corporations-without-morality for their latest assault on the environment and our communities? No—they are doing what they have always tried to do. We should blame ourselves. And we should hold the mainstream environmental groups responsible for their failed "inside the beltway" political gamesmanship.

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The other morning Rabbit Ears Radio presented a reading of "The Emperor's New Clothes." It is the para-

ble of our un-heroic times. A vain emperor has surrounded himself with fawning courtiers—a classic abuse of power. Two charlatans tell him they'll weave him clothes so beautiful that only the worthiest and wisest can see them. When the silly emperor shows off his new clothes, the fawners and the cowering adults pretend they admire the phantom garb for fear of exposing themselves to ridicule. The scam is only exposed when a little boy—too naive to have been intimidated—exclaims "The Emperor has nothing on." The story ends with the humiliation of the emperor. Hans Christian Anderson leaves it to our imagination whether the charlatans are run out of town or if the emperor is deposed.

Judging by the results of the 1994 election, the emperor probably kept his job.

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For two decades mainstream environmental groups have pursued a disastrous strategy that secures a "seat at the table" of power in return for the promise to be "responsible," much the way the courtiers secured their positions at the emperor's court. The corporations who run the U.S. government, and the politicians whose election they bankroll, are not about to allow anyone at the table of power who questions the right of corporations to legally murder citizens with toxics such as dioxin and PCBs, to cheat the government out of billions of dollars in cost overruns, tax fraud and the like. Too often, the lawyers and policy wonks of the big centralized environmental groups have acquiesced. In so doing, they have been complicitous in excluding the grassroots community activists from the debate and deal-making.

Lois Marie Gibbs of Citizen's Clearinghouse for Hazardous Wastes first became a community activist about two decades ago during the Love Canal tragedy. She has clearly articulated a central difference between mainstreamers and grassroots activists: "The Big Ten [mainstream groups] approach is to

ask: What can we support to achieve a legislative victory? Our approach is to ask: What is morally correct? We can't support something in order to win if we think it is morally wrong." (Greider, p. 214)

When Speaker Gingrich and the cadre of extremist Republican anti-enviros attack mainstream environmentalists as "out of touch" with the grassroots, they are correct. The political chess game of the mainstreamers has not only cut grassroots activists out of the deliberations in DC, it has also cut the mainstreamers off from the communities beyond the beltway.

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I am sorry to say that the Northern Forest region is no exception. The mainstream-controlled Northern Forest Alliance (NFA) has received several hundred thousand dollars for "grassroots outreach" from foundations that proclaim they support "risk-takers." The Alliance "outreach" appears to be little more than a "telephone tree" to notify armchair activists to call their legislator or congressman in support of or opposition to a piece of legislation. Unfortunately, the NFA has steadfastly resisted the temptation to articulate a clear vision for the future that might arouse either support or opposition.

This stillborn, top-down, risk-free approach to activism, organizing, and

*Continued on page 3*

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## Emperor's New Clothes

Continued from page 2

community isn't going anywhere. Local politicians are building careers running against enviro groups the way their fathers built careers red-baiting.

Meanwhile, the NFA has not yet spent a penny of its "grassroots outreach" funding in support of the beleaguered citizen activists who live in the Northern Forest communities and who

**"Power concedes nothing without a demand."**

—Frederick Douglass

**"Indeed, I tremble for my country when I reflect that God is just."**

—Thomas Jefferson

**"As nations can not be rewarded or punished in the next world, they must be in this. By an inevitable chain of causes and effects, Providence punishes national sins by natural calamities."**

—George Mason Constitutional Convention 1787

**"There can be no states' rights against human rights."**

—Chas. Sumner

**"Nature bats last."**

—Anon. bumper sticker

have been fighting dioxins, clearcuts, and economic blackmail for decades. Worse, the NFA has not built bridges with existing community groups that are heroically fighting against toxins, pesticides, agribusiness, clearcutting and indigenous rights.

These same underfunded community groups are fighting for a healthy, locally-controlled economy that meets basic needs without sacrificing future options. They are fighting for a healthy environment for their kids, decent schooling and cultural opportunities. They are fighting for the present and future rights of all critters native to the region.

These grassroots activists, however, commit the cardinal sin of "professional" environmentalism: they care about the issues so deeply that—horrors—they fight with both reason and emotion. Emotions such as love of the wild and

fear for your child's health disqualify grassroots from the "reasonable" status required to sit down with the corporate polluters and their politicians.

Grassroots environmentalists (and other grassroots community activists) are like the little boy who said "The emperor has nothing on." They have failed to honor the compact that says: your "credibility" requires that you not question the right of corporations to pollute, to steal, to lie, and to extort huge tax breaks and subsidies.

\*\*\*

The anger that the Republicans tapped into in 1994 is real and it is valid. The corporations and politicians have colluded to poison us and to rob us blind, and we are angry. Unfortunately, since neither the Democrats nor the mainstream environmentalists want to challenge their corporate sponsors, demagogues ranting about school

prayer, term limits, balanced budget gimmicks, and welfare (only for the poor, not the corporations) will again con the confused, scared, ill-informed public into voting against its best interests and serving up more hand-outs to the rich and well-connected.

Great reforms do not grow out of establishment groups. Like the Civil Rights movement of the 1950s, they spring up from obscure communities that finally rebel against further injustice. If the mainstream enviro policy wonks ever discover the humility to work in service of the communities of the Northern Forest and all across the country, instead of presuming to speak on our behalf, they might just tap into that very real anger Americans feel towards our corrupted government. And, they'll also discover the magnificent talent in our communities—the talent that makes a publication like *The Northern Forest Forum* possible.

And, if the mainstreamers work to assure that citizens—emotions and all—have a seat at every table of power, great transformations of our unhappy society are not only possible, they are inevitable.

Until then, I guess we must continue to admire the emperor's new clothes.

—Jamie Sayen



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## Vermont's Rivers Aren't in Worse Shape Than Rivers of Maine & New Hampshire

### To the Editor:

Congratulations on another thought-provoking issue of the *Forum* (Vol 3, #3). I particularly appreciated the "Ecological Health of the Northern Forest" article by Stephen Trombulak. The article gives a very good overview and assessment of the components of the terrestrial part of the ecosystem. I was disappointed, however, with the cursory treatment given aquatic ecosystems. The article did not, in my opinion, give an adequate assessment of the ecological health of this critical component of the Northern Forest. Table 8, for example implies that Vermont rivers are in worse shape and more threatened than either New Hampshire or Maine's rivers. My own experience with assisting river monitoring groups in all three states does not support that implication.

The article relied exclusively on states' water quality assessments under the Clean Water Act. There are at least three problems with this approach to evaluating aquatic ecosystem health:

- 1) Vermont, New Hampshire, and Maine differ markedly in how they assess their waters;
- 2) Differences in assessment methods can lead to different results;
- 3) It's questionable whether these assessments really evaluate aquatic ecosystem health.

Assessing the health of any ecosystem is difficult. As Professor Trombulak notes, the state agencies evaluate waters with respect to their ability to support designated uses under the clean water act. Common uses are water contact recreation, drinking water supply, aquatic life, irrigation, etc. States use common "water quality indicators" such as bacteria, water temperature, and dissolved oxygen to monitor whether water supports these designated uses. They also assess waters based on best professional judgment. However, that's where the similarity ends.

First, it's important to realize that funding cuts

have essentially eliminated the conventional monitoring of surface waters in Vermont and Maine. So the miles of rivers actually monitored has decreased. That means that states' ability to determine whether waters actually support their designated uses is declining. For some rivers, the only current water quality data available is that collected by citizen monitors or schools.

Second, aquatic ecosystems are more than just the list of physical, bacterial, and chemical indicators commonly used to monitor surface waters. In fact, the conventional indicators (e.g. bacteria and dissolved oxygen) are geared primarily to determining the risk to human health of water contact or drinking and whether the water column chemistry can support fish. These were good indicators in the days when our waters were grossly polluted, but determining ecosystem health today requires monitoring habitat conditions and actual living aquatic communities.

Third, the states have different approaches to assessing whether waters support designated uses. Consider the difference between Vermont and New Hampshire, for example. *New Hampshire's approach* is to assess rivers based on chemical and bacteriological sampling at fixed stations. Sampling results are compared with Water Quality Standards, which list acceptable levels of the indicators. Violations are determined based on whether indicators meet acceptable levels—a "pass/fail" approach. There are limited judgments based on threats. *Vermont's approach* is to assess rivers based on monitoring aquatic life (benthic macroinvertebrates and fish) at fixed stations, public comments, chemical and bacteriological sampling conducted as part of permit and enforcement actions, and judgments of state and federal resource professionals. Assessment determinations reflect existing problems based on comparisons to the Water Quality Standards, as well as threats due to various pollution sources.

Needless to say, differences in the assessment

approach can lead to different conclusions. Consider the rather startling implication from Table 8 that only 59% of Vermont's rivers fully support their designated uses, versus 98% in New Hampshire and Maine. I believe that this is more of a reflection of differences in approach than differences in actual water quality conditions: Vermont simply considers a broader range of sources than does New Hampshire for, example. This is particularly true of the "Threatened" category. Does anyone really believe that there are no threatened rivers in New Hampshire and Maine? My experience with river monitoring groups in all three states shows that this is clearly not the case.

Aquatic ecosystems are very complicated. Assessing their health requires consideration of ecological functions as well as monitoring aquatic communities themselves. In short, it requires the same degree of care and thoroughness that Professor Trombulak applied to the terrestrial part of the system. I notice that the article is excerpted from a *Vermont Law Review* article. Perhaps the original went into more detail on aquatic ecosystems. If so, it might be a good idea to do a follow-up. Otherwise, I'm afraid that your readers will have the mistaken impression that our aquatic ecosystems are all healthy and not threatened, except in Vermont.

Sincerely, Geoff Dates  
Science Coordinator  
Riverwatch Network, Inc.

*Editor's Response: Dr. Trombulak and I agree with your point that we need to do more to address issues of aquatic ecosystem integrity in future issues. I encourage you and others involved in river monitoring to submit articles to the Forum on the techniques and results of river monitoring.*

# Maine Forest Service Evaluation of the Forest Practices Act - A Happy Spin on Sad Data

by Mitch Lansky

The Maine Forest Service (MFS) evaluation of the effects of the Forest Practices Act (FPA) confirms what critics have been saying 'all along—the clearcut rules do not meet the mandate of the law “to provide a healthy and sustainable forest,” and “to address adverse effects on wildlife.” If landowners want to overcut and/or degrade a stand or even a township—they legally can. If they do not do so, it is in spite of the Act, not because of it.

Critics of the FPA have been insisting that not all of the forests of Maine have been equally affected by heavy cutting—most of the big clearcuts are, they have claimed, on industrial landownerships. It is for this reason that citizens initiated LD 1764, which would have regulated heavy cutting and clearcutting in the unorganized territories, the region where most of the industrial lands are located. Typically, the legislature turned LD 1764 into a study instead.

The MFS study found that, indeed, 91% of the clearcuts (by their definition) occurred on the bigger landownerships. The study found that 68 townships, almost all in the unorganized territories, had more than 1,000 acres of clearcuts each from 1991-1993. The MFS also confirmed that even if 74% of clearcuts are now under 35 acres in size, by multiplying these Class I clearcuts across the landscape (separated by 250 foot buffers—which can be cut heavily, if desired), landowners can make as big a rolling clearcut as they please. The MFS located 44 townships where there were such multiple clearcuts in close proximity. In 11 of these townships, such “cookie cutter” cuts covered 28,000 acres (not including the buffers); about 2,545 acres per township on average.

Of partial cuts, MFS data showed

that in 48% of softwoods, 49% of mixed woods, and 45% of all forest types, landowners left stands that silvicultural tables list as “understocked.” This means that landowners are creating an average of 180,000 acres of understocked stands a year in Maine. In 9% of the sites examined (average of around 36,000 acres a year), landowners left between 30 and 39 square feet of basal area—close to the margin of the state’s definition of a clearcut. Thirty percent (120,000 acres) of the partial cut had less than 45 square feet basal area.

The MFS, however, presented the data in its summaries in a reassuring manner. The authors were able to put a happy spin on the data by using two techniques:

- (1) set up very low silvicultural hurdles and give lavish praise to those landowners who clear them; and
- (2) put negative data in such a large context that it seems insignificant.

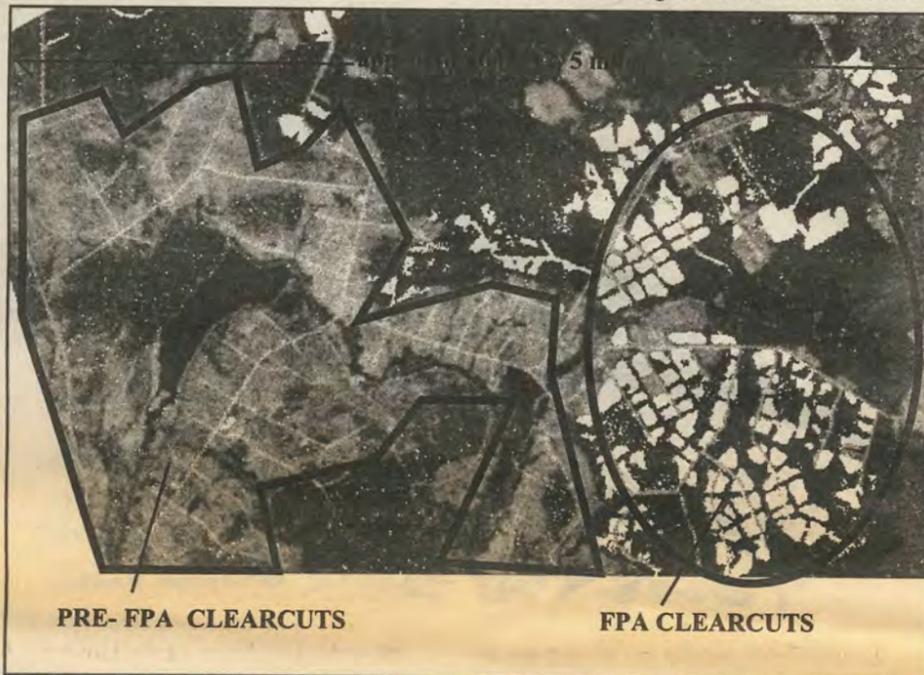
For example, the MFS arbitrarily defined stands that were stocked with between 40 and 70 square feet basal area as being “moderately stocked” regardless of species. Yet, by standard silvicultural definitions, approximately 80% of such stands would qualify as “understocked.” The MFS also defines “high-grading” in an extremely narrow way. To be high-graded, a stand would have to be cut to the lowest allowable level (30-39 square feet basal area) and also have the lowest rating of harvest-quality—one or two out of a scale of five. This rating scale starts at one, not

zero, and gives up to two points for good logging and yarding. Thus, the stand can have a rating of three and still have poor quality residual trees.

Using both techniques, the MFS concluded that only 8% of partial harvest “resulted in a high-graded stand. This is equivalent to 0.19% of Maine’s total forest acres.” Note how the MFS compares the 31,900 acres that do not meet even its low standards to all the 17 million acres of forest in the whole state—as if the rest of the forest is in great condition. And, by the way, “high-grading occurs more often on small private ownerships.” Don’t worry about industry. The state happily informs us that, by its definition “84% of the partial harvest acres sampled are moderately to well stocked and demonstrate sound silvicultural planning.... These stands are stocked with well-formed trees of desirable species and will continue to grow in value.”

As for clearcuts, they are not only declining in total acreage, but their average size is going down as well. Even though MFS data revealed that 48% of the acreage clearcut was found in “cookie cutter” cuts that effectively created huge clearcuts, the study concludes that “the most frequent pattern of clearcut distribution... consists of single clearcuts or small groups of clearcuts widely dispersed on the landscape.” Unfortunately, the MFS did not reveal to us what proportion of this landscape had clearcuts created prior to 1991. Some of these new clearcuts may be dispersed from each other, but not from older clearcuts.

The raw data (based on 150 plots out of 1.36 million acres), if put into even the most lenient silvicultural forms accepted by foresters, show that a large proportion of forest practices in Maine are deficient. Even worse, it raises questions of competence about the foresters who have been planning and supervising these cuts.



Has the Maine Forest Practices Act stopped clearcutting in the Maine Woods? On the left of this composite satellite image is an area encompassing several thousand acres of rolling clearcuts created prior to 1991 when the FPA rules went into effect. On the right is an area of approximately 3,400 acres of multiple clearcuts created from 1991 to 1993, after the FPA rules were in place. This photo is approximately 12.5 miles wide and encompasses about 60,000 acres. Image courtesy of Maine Forest Service.

## Joint River Commissions Offer Watershed Guide to Controlling Non-Point Pollution

Charlestown, NH: The Connecticut River Joint Commissions have released their new handbook for citizens, communities, and contractors aimed at helping them control non-point source pollution that can contaminate the Connecticut River. *The Watershed Guide to Cleaner Rivers, Lakes and Streams* is abundantly illustrated and written with the landowner in mind. Useful to everyone from the fifth grade student wondering how to help her town keep the local swimming hole safe to the developer wanting to have his subdivision and a healthy environment, too, the guide will soon be available at county cooperative extension service offices and local libraries.

Inside is a reader-friendly look at how watersheds work and the various ways pollutants travel through them. Best management practices are described and illustrated for a kaleidoscope of locations, including construction sites, back yards, septic systems, sand and gravel pits, marinas, farms, golf courses, and woodlots. Sound advice about what to do about storage of chemicals, petroleum products, and hazardous wastes follows. Equally help-

ful is a directory of sources for further information, including county, state, regional, and federal agencies and organizations.

The Joint River Commissions won a region-wide environmental education grant from the Environmental Protection Agency to produce the guide, and drew upon the advice of a wide variety of experts, including educators, state water quality agency staff, the River Watch Network, and the Connecticut River Watershed Council. The guide is part of the “Living with the River” series of publications produced by the Commissions for Connecticut River Valley citizens.

The Joint River Commissions of NH and VT, appointed by their respective legislatures, involve and empower local people within the Connecticut River Valley to create and maintain a quality environment and working landscape that supports a diverse and sustainable economy.

For more information, contact: Adair Mulligan, Communications Coordinator, POB 117, Lyme Center, NH 03769, (603) 795-2104.

## Lake Champlain Report

The Lake Champlain Basin Program has issued *Opportunities for Action*, a draft plan for conservation measures that is open for public comment until May 15th. The plan is the work of a 33 member conference representing the full gamut of Lake Champlain stakeholders to which was attached, as well, a citizens’ advisory body of 24 and staff of 13. The project is the outgrowth of a Congressionally mandated Lake Champlain conservation initiative.

There is something for everyone in the findings and recommendations of the report, which address pollution reduction, resource conservation and restoration. According to friendly critics, its chief short-coming is the absence of an implementation strategy that simplifies the overwhelming criss-crossing of state, federal and local agency jurisdictions in the Champlain Basin. As has been suggested by citizens similarly struck by the alphabet soup of agencies operative in the Connecticut River drainage, it is time for one entity to play a coordinating role on a watershed basis. Instead, the report has called for “new partnerships” among involved organizations. In any event, the consensus is that a simplified schema is necessary to achieving concerted action within a watershed.

Overall, the report makes a case for restoration ecology in the Champlain basin. The cumulative impacts of humanity—including the introduction of exotics and nutrient pollution—have altered the lake over the past centuries to the point where it no longer supports significant cold-water fish populations such as lake trout and Atlantic salmon. The feasibility of restoring the endangered sturgeon is questionable; walleyes are also experiencing a disturbing decline.

Among the Basin report’s fish and wildlife management objectives are the development of ecosystem-based approaches that will integrate existing efforts and maintenance or restoration of Lake Champlain’s biodiversity.

The comment period for the Lake Champlain Basin Program report ends May 15th. You may contact the program office at Gordon-Center House, 54 West Shore Road, Grand Isle, Vermont, 05458 or call 802-372-3213 or 1-800-468-LCBP for further information.

—A.W.

# Vermont Snubs Public in Forest Policy Formulations

*Or, As Maine Goes,  
So Goes Vermont*

by Andrew Whittaker

It was a disheartening contrast. I was sitting in a hearing room of the Vermont legislature, listening to legislators on the House Committee on Environmental Quality & Energy quiz members of the newly re-formed Forest Resource Advisory Council (FRAC) on priority forest issues. FRAC presented its laundry list of matters it might take up, its "mission," which included biodiversity, taxes, sustainability, forest practices and public land. The consensus which FRAC quickly handed the committee, and then dominated discussion, was that full funding of current use and resolution of other tax impediments are the predicate of further discourse—i.e., forest policy in the state of Vermont held hostage to property tax reform.

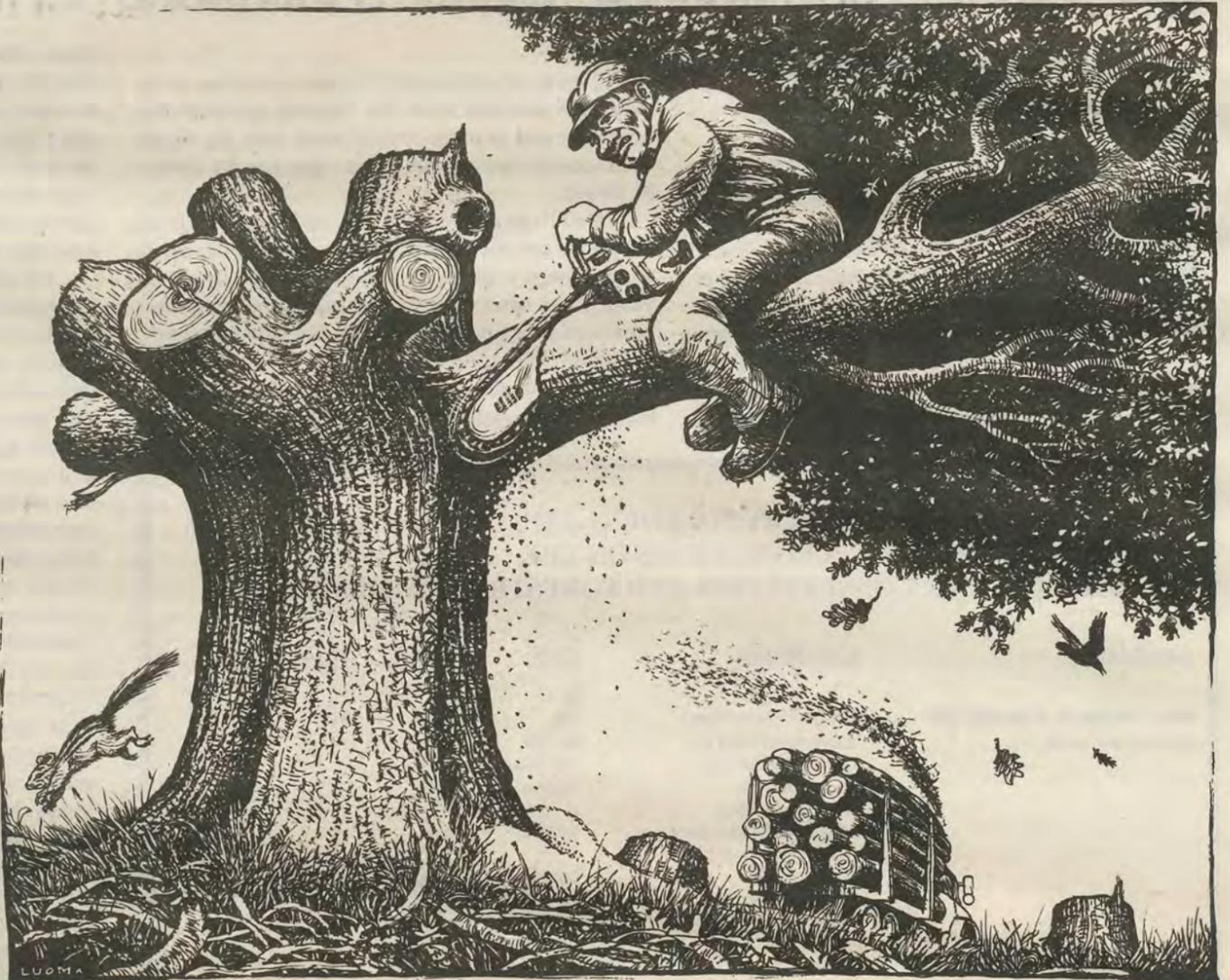
But the bad news got worse. One FRAC member assured legislators curious about the hue and cry from townspeople over liquidation logging that there wasn't any real problem. "I don't see the local outcry as significant . . . they're going to be bellyaching about something," he explained. (At a later FRAC meeting, this same member would refer to "the rise and fall of public clamor" in a discussion generally dismissive of public input.)

Other members of FRAC who spoke demonstrated that the Council's definition of sustainability is sustainability for the status quo—with no acknowledgment of ongoing economic and ecologic degradation of Vermont woodlands. Other members spoke little or, as the representative of banking and finance confessed, knew little about forest issues.

*One FRAC member assured legislators curious about the hue and cry from townspeople over liquidation logging that there wasn't any real problem. "I don't see the local outcry as significant . . . they're going to be bellyaching about something."*

Contrast that to another meeting, held only a few days before, in the town of Guildhall, where a local group of educators and natural resource professionals hosted a day long panel and audience discussion on forest issues—largely, the issue of clearcutting and other forest practices. Here, the conversation was much more dynamic—messier, angrier, and essentially democratic.

What contributed to the energy of the dialogue was that a cross-section of local voices spoke, illustrating the full complexity of forest issues, and addressing the issue of how to resolve, in neighborly manner, the problems dividing a community. Was there a consensus? To this observer, the consensus seemed to be that Democracy is still a good idea. All voices must be heard, the issues framed, the parties engaged, the



dialogue continued and solutions entertained.

FRAC by contrast is a body marked by consensus and near-unanimity on issues and attitude toward the public. What FRAC needs is what the RoundTable model proposed by the Northern Forest Lands Council (NFLC) sought to ensure: a discussion equal to the economic and ecologic challenges of a forested state. By its lack of inclusiveness and its fear of debate, FRAC has indicated its unwillingness to tackle tough problems—although it will not hesitate to interfere with proposed solutions it does not like [see legislative column].

The question that deserves answering, given Vermont's deference to FRAC, is, what does this body intend to do? How far is it willing to depart from the admitted biases of individual members in responding to the public desire for proactive forest policy measures? How far will minority members, should any emerge, push a reluctant Department of Forests, Parks and Recreation to overcome its bias against regulation of forest practices? Will members be added who can argue the full depth and range of biodiversity or local economic issues? (As of now, there are no FRAC members from the Northeast Kingdom, Vermont's most forest-dependent area; and there is no independent conservation biologist.)

## The Role of Commissioner Motyka

No one knows better than Vermont's Commissioner of Forests, Parks and Recreation, Conrad Motyka, that the FRAC proceedings he oversees are far quieter than meetings at the grassroots. A member of the Northern Forest Lands Council and Governor Dean's chief advisor on forest issues, the Commissioner has attended count-

less Guildhall-like meetings. He also actively participated in the fashioning of the NFLC's recommendations. High on the NFLC priority list was the establishment of state Forest RoundTables. Did the Commissioner take a lead in urging either the legislature or the Governor to adopt the NFLC RoundTable charter? Did he urge inclusion and participation? The results speak for themselves.

At the latest meeting of FRAC, Chairman Darby Bradley of the Vermont Land Trust posed the question to members: should the RoundTable concept be embraced? The Commissioner's response left no doubt that he desires all policy-making decisions to remain in the hands of the executive-style Council, no matter what other forums may develop: "My caution flag is that this is the body that has authority [to make policy recommendations]." Further, the public is to retain a subsidiary role of the dumb awaiting enlightenment. In agreeing that FRAC should take its meetings on the road, the Commissioner noted, "One of the best ways to educate people is to meet with them."

One must wonder however if the Commissioner isn't his own worst enemy when it comes to building support for Forests and Parks funding. Noting the prospect of "significant layoffs next year" if budgets collapse, and agreeing with other FRAC members lamenting the routine underfunding of his department, Motyka admitted to "sour expectations" for public land management. Regulatory duties would only add to the budgetary burdens. Further, the Commissioner expressed exasperation that "trees drive this state's economy, and no one has figured it out yet."

*How can a public that wants to see a pro-active forest policy support funding for a department that dismisses and*

*ignores its concerns?* Adoption of the Northern Forest Lands Council's RoundTable recommendation would have been a solid, shrewd move toward building a coalition to support Forests and Parks. Obviously, however, such a gesture would come at the price of a forest policy discussion that might build beyond the realm of FRAC's narrow interests.

## Conclusion

For lack of leadership, the RoundTable model has not been pursued in Vermont. Some folks remain optimistic that old-style, insider consensus building can retain control over policy and still remain relevant to social and ecological problems. Some even suggest that in contentious issues, executive decision-making is for the best. Some progressives note that we expect too much from government anyway and that solutions to resource problems will have to come from other quarters.

But then, what is government for? Vermonters expecting its Forest Resource Advisory Council to dive in deep and ask what is best for Vermont's forests and rural communities may be disappointed. The public has already noted lack of sufficient value-added economic activity, a downward spiraling of forest quality and the subjugation of a sawtimber forestry to woodchip expediency. The ecologic impact of forest fragmentation, clearcutting and soil degradation are issues that the public wants addressed. Loggers distressed by their own industry's short-term priorities and concerned about such matters as the bidding process on state forests are likewise looking for leadership. In an era of shrinking public dollars and increasing social deficits, we all expect innovative approaches commensurate to social challenges.

What we all must ask, who is FRAC for?

# Greenbacking the Maine Legislature

## A Conflict of Interest is a Contradiction in Terms

by Jym St. Pierre

A recent edition of the comic strip "Shoe" addressed the issue of political contributions. Sitting at a news conference, one reporter says to another, "Some say the Senator is a virtual prisoner to his big contributors." "Nah," answers the other. "It's more like a work release program." As with all effective political satire, this exchange is funny to extent it is true. It is

very funny.

Running for public elective office in Maine at the state and national level has become outlandishly expensive and is often contaminated with big bucks from special interests who are not donating for altruistic reasons.

In 1994 Angus King spent a record amount (\$1.6 million) to get elected governor, sixteen times as much as Jim Longley spent just twenty years ago. In recent years, some candidates for the state legislature have spent well over \$100,000 for a job that pays an average of only \$8,700 a year.

The good news is that most legislative races in Maine are still relatively modest in cost. The average

House seat costs about \$4,500, a Senate throne \$24,000. The bad news is that a few hundred or a few thousand dollars can make or break many legislative campaigns in a small, poor state such as Maine. And much of that electoral money is coming from out-of-state businesses and political action committees (PACs) which want to influence who gets elected and how they vote once elected.

For instance, take a look at the contributions of the forest products industry to key legislative candidates in Maine, the Paper Plantation. During 1994 the forest industry gave over \$16,000 to candidates who won election and were appointed to the two committees that deal most directly with forestry issues. Grand prize winner was Willis Lord who squeaked into a senate seat by a mere five votes (three-hundredths of one percent of the votes cast). Lord received nearly \$5,000 from forestry companies and forest industry subsidized PACs. But for the donors the money was well spent. With a new Republican majority in the state senate, Lord was named senate chair of the Natural Resources Committee as well as one of only three senate members of the Agriculture, Conservation and Forestry Committee. The forest industry got double the bang for their buck. After five terms in the House, Lord had accumulated a strong anti-environmental reputation and record. His lifetime Maine League of Conservation Voters (MLCV) average is 16%, but his environmental rating over the past six years was barely double digit.

Many other members of the two key committees that have jurisdiction over forestry and pulp and paper issues also successfully shook fruit from the forestry giving tree. First time Senator, and new co-chair of the Ag/Forestry Committee, Vinton Cassidy got \$3,300. Fifth term representative, self-employed logger and Natural Resources Committee co-chair, Richard Gould received nearly \$1,400. Gould's lifetime MLCV rating is 34%. For a full listing of contributions to members of both committees see the accompanying tables.

Political Action Committees, a reform which grew out of the Watergate scandal, were supposed to nudge political giving into the sunshine. Unfortunately PACs often represent camouflage more than reform. Most 1994 contributions to Maine legislative candidates by forestry interests, for example, were given directly in the name of the companies. (Unlike many states, Maine allows such business donations.) International Paper Company, on the other hand, disguises its political funding behind a PAC screen called Voluntary Contributors for Better Government. Some forestry companies also go for more than one bite at the apple. Boise Cascade, Champion International, Georgia-Pacific and International Paper all gave thousands of dollars both directly and through the Maine Business PAC to legislative candidates who got appointments on the forestry committees. Two prominent members of the Maine Business PAC are forest industry representatives (Steve Clarkin of International Paper Company and Andrea Maker of Champion International Corporation).

One sidenote: because of redistricting, impending term limits, unusually high turnover, lack of primary and/or general election opponents, and committee reorganization, it was particularly difficult to judge who was going to be elected and which party would control legislative committee make-up this time around. In light of that, it is remarkable that forestry donors focused their giving so effectively in 1994. On the other hand, maybe it was not just luck.

Elected officials typically downplay the significance of political contributions and play up the importance of having a citizen legislature. However, with few checks on candidates the opportunity for conflict of interest is great. Maine has a long tradition of putting forest industry folks into elected and appointed positions formulating forest policy and overseeing forestry regulation. For an accounting of how this has played out in recent years read Mitch Lansky's book *Beyond the Beauty Strip*.

Yet we never seem embarrassed to repeat ourselves. In the past few months we have seen the election of a governor who received thousands of dollars from the forest industry, the election of a Speaker of

### FOREST PRODUCTS INDUSTRY POLITICAL CONTRIBUTIONS TO MAINE LEGISLATORS ON THE AGRICULTURE, CONSERVATION AND FORESTRY COMMITTEE 1994

Candidate	Contributor	Date	Amt(\$)	MLCV (93-94)
<b>Sen. Vinton E. Cassidy (R)</b> Washington County	ScottPAC (Scott Paper)	NA	250	NA
	International Paper Co	10/4/94	500	
	Georgia-Pacific Corp	10/19/94	300	
	David Hancock (Hancock Lumber)	9/26/94	500	
	M/M Robert Chadbourne (P.H. Chadbourne)	9/27/94	1000	
	Rand Stowell (United Timber Corp)	9/28/94	250	
	Maine Business PAC	9/23/94	500	
	<b>Sen. Willis A. Lord (R)</b> York County	ScottPAC (Scott Paper)	8/11/94	500
Vol Contrib Better Govt (International Paper Co)		9/29/94	500	
Boise Cascade Corp		8/16/94	400	
Bowater, Inc		8/29/94	200	
Fraser, Inc		10/14/94	200	
United Timber Corp		9/29/94	250	
Hancock Lumber		9/23/94	1000	
M/M Robert Chadbourne (P.H. Chadbourne)		9/26/94	1000	
Jack E. Chinn (Madison Paper)		6/7/94	100	
Maine Business PAC		8/22/94	500	
Maine Business PAC		9/22/94	250	
<b>Sen. Judy A. Paradis (D)</b> Aroostook County	Fraser, Inc	10/24/94	300	60%
	Fraser Empl Credit Union	9/27/94	100	
<b>Rep. Douglas J. Ahearne<sup>1</sup> (D)</b> Madawaska	Fraser, Inc	11/1/94	300	0%
<b>Rep. Ruel R. Cross<sup>1</sup> (R)</b> Dover-Foxcroft			0	10%
<b>Rep. Edward L. Dexter (R)</b> Kingfield	Champion International Corp	10/24/94	100	20%
	Boise Cascade Corp	10/19/94	300	
	ScottPAC (Scott Paper)	8/18/94	200	
	Bowater, Inc	9/1/94	100	
	Maine Business PAC	10/23/94	250	
	Maine Business PAC	10/25/94	250	
<b>Rep. Conrad Heeschen (D)</b> Wilton			0	100%
<b>Rep. Clyde A. Hichborn (D)</b> LaGrange			0	50%
<b>Rep. Marge L. Kilkelly<sup>1</sup> (D)</b> Wiscasset			0	60%
<b>Rep. Richard Kneeland (R)</b> Easton			0	10%
<b>Rep. Robert W. Spear (R)</b> Nobleboro	Boise Cascade Corp	5/26/94	250	10%
	Vol Contrib Better Govt (International Paper Co)	10/22/94	250	
	Maine Business PAC	5/26/94	250	
	Maine Business PAC	9/26/94	250	
<b>Rep. Donald A. Strout (R)</b> Corinth			0	10%
<b>Rep. Thomas M. Tyler (D)</b> Windham	Hancock Lumber	8/12/94	290	NA
	Hancock Lumber	5/15/94	221 (in-kind)	

Source: Maine Commission on Governmental Ethics and Election Practices, campaign finance reports, 1994.

<sup>1</sup> Ran unopposed in general election, 1994.

the House whose wife works for S.D. Warren, the appointment of a state Chief Operating Officer who has worked developing biomass plants in Maine, and the appointment and overwhelming legislative confirmation of a new Commissioner of Conservation who spent more than twenty years working for International Paper, the largest paper company in the world. We are still awaiting the appointment of a new Maine Forest Service director. Don't expect any surprises.

Citizen watchdog groups periodically issue reports documenting the need for election reforms. The Money and Politics Project of the Maine Citizen Leadership Fund, for instance, has issued a series of reports called *Elections or Auctions*. The reports have urged that "reforms get at the root of the problem—eliminating the influence of the vested interests which are funding the elections of Maine's public officials." Obviously, that is easier said than done. Maine's ethics commission, already a paper tiger, may have a few more teeth pulled by the state legislature this year.

For now, citizens interested in the future of the Maine Woods ought to at least pay attention to who is purchasing a substantial share of the attention of those elected officials who are making decisions about the fate of our forest. And we should try to hold them accountable to the public interest at stake.

*Jym St. Pierre was a founding director of the Maine League of Conservation Voters and has worked professionally on forest conservation issues in Maine for nearly twenty years.*

## What You Can Do:

*Get information on the environmental record of elected officials:*

**Maine League of Conservation Voters**  
POB 5271  
Augusta, ME 04332

**Maine People's Alliance**  
65 West Commercial Street  
Portland, ME 04101

**Maine Green Party**  
283 Water Street, Suite 16  
POB K  
Augusta, ME 04332

**New England Environmental Voters**  
3 Market Square  
Portsmouth, NH 03801

**Sierra Club**  
85 Washington Street  
Saratoga Springs, NY 12866

**US Pirg**  
218 D Street SE  
Washington, DC 20003

**Conservation Voters of New Hampshire**  
RR1 Box 157A  
New Hampton, NH 03256

**NY League of Conservation Voters Action Fund**  
65 Bleecker St. 6th Floor  
New York, NY 10012

*Get information on campaign reform:*

**Money and Politics Project**  
**Maine Citizen Leadership Fund**  
POB 2512  
Augusta, ME 04338

**Common Cause**  
POB 2913  
Augusta, ME 04330

**Dirigo Alliance**  
POB 2333  
Augusta, ME 04338

**Center for Responsive Politics**  
1320 19th Street, NW—Suite 700  
Washington, DC 20036

## FOREST PRODUCTS INDUSTRY POLITICAL CONTRIBUTIONS TO THE MAINE BUSINESS POLITICAL ACTION COMMITTEE

1994

<u>Contributor</u>	<u>Date</u>	<u>Amount (\$)</u>
Boise Cascade Corp	1/5/94	3500
Prentiss & Carlisle Co	3/10/94	100
Lovell Lumber Co	3/10/94	100
Pride Mfg Co	3/10/94	100
Saunders Bros	3/28/94	250
Champion International Corp	4/8/94	3000
David Carlisle (Prentiss & Carlisle Co)	9/8/94	100
International Paper Co	10/7/94	5000
Georgia-Pacific Corp	10/7/94	3000

*Note: Two of the nine members of the Maine Business PAC are forest industry representatives (Steve Clarkin of International Paper Company and Andrea Maker of Champion International Corp).*

*Source: Maine Commission on Governmental Ethics and Election Practices, campaign finance reports, 1994.*

## FOREST PRODUCTS INDUSTRY POLITICAL CONTRIBUTIONS TO MAINE LEGISLATORS ON THE NATURAL RESOURCES COMMITTEE 1994

<u>Candidate</u>	<u>Contributor</u>	<u>Date</u>	<u>Amt(\$)</u>	<u>MLCV (93-94)</u>
<b>Sen. W. John Hathaway (R)</b> York County	Maine Business PAC	11/11/94	250	NA
<b>Sen. Willis A. Lord (R)</b> York County	ScottPAC (Scott Paper)	8/11/94	500	10%
	Vol Contrib Better Govt (International Paper Co)	9/29/94	500	
	Boise Cascade Corp	8/16/94	400	
	Bowater, Inc	8/29/94	200	
	Fraser, Inc	10/14/94	200	
	United Timber Corp	9/29/94	250	
	Hancock Lumber	9/23/94	1000	
	M/M Robert Chadbourne (P.H. Chadbourne)	9/26/94	1000	
	Jack E. Chinn (Madison Paper)	6/7/94	100	
<b>Sen. Richard P. Ruhlin (D)</b> Penobscot County	Maine Business PAC	8/22/94	500	30%
	Maine Business PAC	9/22/94	250	
	Champion International Corp	10/1/94	750	
<b>Rep. Randall L. Berry (D)</b> Livermore	Boise Cascade Corp	10/18/94	250	NA
			0	
<b>Rep. Catharine L. Damren (R)</b> Belgrade	Vol Contrib Better Govt (International Paper Co)	10/4/94	250	NA
	Maine Business PAC	8/26/94	250	
	Maine Business PAC	1/26/94	250	
<b>Rep. Ernest C. Greenlaw (R)</b> Standish	ScottPAC (Scott Paper Co)	8/22/94	200	0%
	Champion International Corp	10/7/94	100	
	International Paper Co	10/7/94	250	
	Boise Cascade Corp	10/19/94	200	
	Maine Business PAC	9/27/94	250	
<b>Rep. Richard A. Gould (D)</b> Greenville	Bowater, Inc	8/30/94	100	40%
	Vol Contrib Better Govt (International Paper Co)	10/2/94	250	
	Georgia-Pacific Corp	10/4/94	100	
	Boise Cascade Corp	10/20/94	200	
	ScottPAC (Scott Paper Co)	10/14/94	200	
	Champion International Corp	11/4/94	100	
	Maine Business PAC	8/28/94	250	
	Maine Business PAC	10/24/94	250	
			0	
			0	
<b>Rep. John P. Marshall (R)<sup>1</sup></b> Eliot			0	10%
<b>Rep. June C. Meres (D)</b> Norridgewock			0	NA
<b>Rep. Roy I. Nickerson (R)</b> Turner			0	0%
<b>Rep. Thomas E. Poulin (D)</b> Oakland	ScottPAC (Scott Paper)	8/17/94	200	30%
	Maine Business PAC	9/22/94	250	
<b>Rep. Jane W. Saxl (D)</b> Bangor			0	50%
<b>Rep. David C. Shiah (D)</b> Bowdoinham			0	NA

*Source: Maine Commission on Governmental Ethics and Election Practices, campaign finance reports, 1994.*

<sup>1</sup> *Ran unopposed in general election, 1994.*

# Paper Industry to Maine~More Subsidies, Less Taxes

*Selected Observations on the Report of the Commission to Study the Future of Maine's Paper Industry*

by Mitch Lansky

The main argument of the Commission was that:

- a) The paper industry in Maine is in decline.
- b) The decline is due to Maine's "disadvantages," such as:
  - \*high energy costs;
  - \*high environmental costs;
  - \*high labor costs (especially workers' comp.);
  - \*high taxes;
  - \*poor transportation system, and
  - \*poor education system.
- c) The state could reverse this decline by making itself more attractive than competitor states and provinces to capital investments.
- d) Therefore, the state needs to be more industry friendly. Towards this end, some of the Commission's recommendations were for:
  - \*more industry involvement in government (including staff positions, an industry "Council," and programs for promoting a favorable public image of industry);
  - \*increasing spending on transportation systems;
  - \*lowering energy costs;
  - \*lowering environmental costs and standards; and
  - \*eliminating property tax on equipment.

The Commission (which, with one exception, was almost entirely made up of paper industry employees) made a poor case for hardship. In some cases its own research either contradicted its conclusions or left out important details:

1) Assuming none of the "disadvantages" of Maine are new, for example, why would industry

investment in Maine drop from 92% of the US ratio of spending on capital improvements in 1989 to 39% of this ratio in 1993? Could there be other factors such as timber supply, which the Commission did not address?

2) While the industry complained of high energy costs, a major cause of high utility costs has been their "non-utility generator" contracts for cogeneration and biomass facilities. The industry also has special contracts with the utility for lower purchase rates. Furthermore, their own electrical generation (especially hydro) makes their costs quite competitive with other regions.

*Assuming none of the "disadvantages" of Maine are new, for example, why would industry investment in Maine drop from 92% of the US ratio of spending on capital improvements in 1989 to 39% of this ratio in 1993? Could there be other factors such as timber supply, which the Commission did not address?*

3) While Maine does have a property tax on equipment and a high sales tax, Maine also has a number of generous tax breaks used by the paper industry. These include: investment tax credits, breaks on manufacturing equipment, tax credits on waste reduction, tax increment financing (where municipalities do tax-free investments on infrastructure improvement), the Tree Growth Tax Law, and various exemptions on the sales tax. These sales tax exemptions include: machinery used in manufacture, energy used in manufacture, pollution control facilities, and raw materials used in manufacture.

4) While Maine has more stringent pollution stan-

dards than other paper-making states for some pollutants, other states have higher standards for other pollutants. The goal should not be to choose the lowest standards (i.e., the federal government's) but to raise everybody's standards to levels that afford protection of the public and the environment.

5) While Maine paper workers are well-paid by Maine standards, Maine's overall labor costs are less than Canada West, Canada East, US South, and US West.

6) While the industry claims wood costs in Maine are high, the Commission somehow neglected to explain why this would be so considering that Maine has the highest percentage of the timber base owned by the industry in the entire country.

7) While much of education funds come from the local property tax, and the Commission complains that Maine's education system is inferior, industry is trying to minimize or eliminate its property tax (tree growth and equipment).

**Conclusion:** As I see it, the Commission, wants the state to spend more money on behalf of the paper industry while the paper industry spends less money in taxes on behalf of the state. This takes chutzpah. For those unfamiliar with this backwoods Maine lingo, chutzpah means "unmitigated gall." The classic example is the young boy who killed both his parents and then pleaded for the mercy of the court because he was an orphan. It is quite pathetic to see these wealthy multinational corporations come whining to one of the poorest states in the nation for aid, especially now that the industry slump has ended and the companies are making big profits.

Rather than a commission to prop up an over-extended, domineering industry, we should have gotten a commission geared towards cushioning the transition to a more diverse economy that better serves the forest and the people of the region.

## Whither Maine's Paper Industry—Part II

# Commission to Bail Out Paper Industry Ignores Current Wood Shortage

by William Butler

On March 9 the Commission on the paper industry's future disclosed its findings and recommendations to the Governor and Legislators. The findings amount to a wish list of more tax breaks, more economic support, more understanding and appreciation, with less environmental regulation. Very little that was unpredictable appears, and what to some of us is the most fundamental factor was conspicuously absent—the wood shortage now grudgingly acknowledged elsewhere. As described in the Mid Winter 1995 *Forum*, (p. 23-24), the question of wood supply limiting mill expansion (not to mention mill existence) was delegated to Robert Wright of Jaakko-Pöyry, a consultant to timber industries. Wright has been timberlands manager in Maine of Great Northern Paper's 2 million acres; possibly he has as good an understanding of the Northern Forest's condition as could be realized. Unfortunately, we are denied the benefit of his experience in his part of the study.

Rather than invoking real, on-the-ground landowners' numbers (which, of course, are presumably in the hands of the company forest managers),\* Wright was content to base his essay on a Maine Forest Service interim study,

which, charitably, can be described as sketchy; *suspect* is the word that first comes to mind. In the study, 1497 sampling points were taken to represent the condition of 17,873,880 forest acres. The ratio is one point per 12,000 acres. In some minds this level of scrutiny diminishes confidence. In fact, one of these sampling points alone would give an absurdly inaccurate estimate of the forest on that acre, not to speak of 12,000.

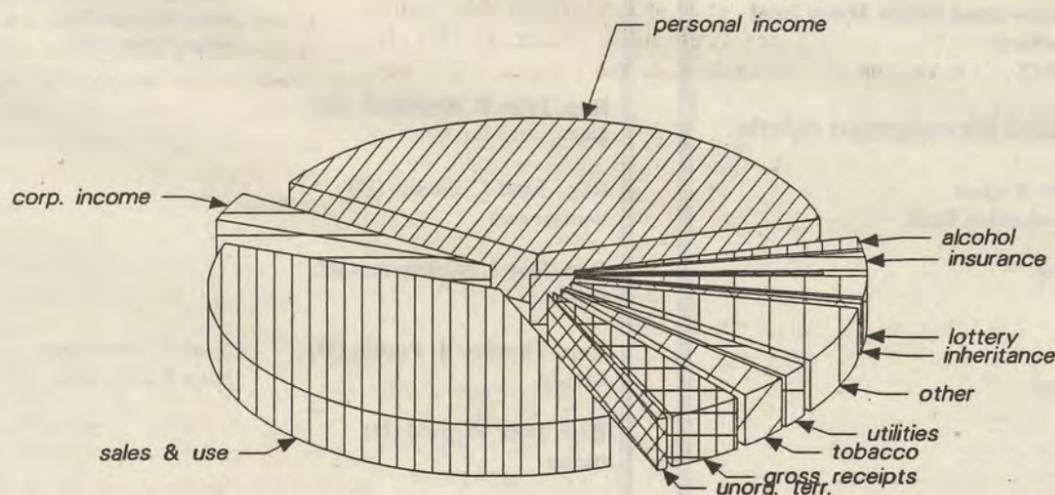
These caveats notwithstanding, Maine Forest Service concluded that the supply of spruce and fir, on which the

greatest interest and concern center, is down, and will get worse. Typical of the sort of statistical garbage published by our employees in USFS and MFS since 1980, the MFS Interim report warns, "...anyone using these data to make comparisons should make certain that such comparisons are between equivalent information." (If a series of inventories is meant to be of use, they must be comparable, right?) Taking their own word for it, MFS shows forest inventories for all commercial species in 1959, 1971, 1980, and 1990, and for fir and spruce, additionally in 1986. They con-

fidently report significant declines for these two species between 1980 and 1990, while showing no decline between 1971 and 1980, a period of the greatest expansion in cutting for lumber and paper.

The greatest flaw in all these comparisons is that the earlier USFS inventories were derived from sampling plots which were established by the timber owners, large and middling. They were known as *continuing forest inventory* plots, to be remeasured from time to time. Knowledge of the plot's location, it is conceded, creates a bias. To say the

Maine General Fund Revenues  
Projected Fiscal 1995



The paper companies only contribute 7.5% of the "corporate income tax" collected by the state of Maine. Note the sliver for "unorg. terr.," that represents the property taxes on the unorganized territories (half of the state's land). Paper companies and large non-industrial owners own nearly all of the unorganized territories. They pay an average of 60 cents per acre and complain their taxes are too high.

Data for chart—Controller's Office

\* Questioned by the producer of the PBN TV program of 30 March, the Commission's chair, Glenn Foss, of Madison Paper admitted that the real Maine wood inventory numbers are necessary to realize the purpose of the study. (Madison doesn't have timberland, so he is not likely to be embarrassed by the implications of his remark.)

## ME Taxpayers to Foot Bill for Proposed Industry Tax Breaks

Of the wishes for "improving Maine's business climate" that emerged in the commission's report, the one removing manufacturing property from the local tax base carries the highest immediate dollar cost. Cost to whom?

What is intended is that paper mills costing hundreds of millions will pay no local property tax. In the case of Champion's mill at Bucksport, a tax shift of several million dollars per year to less fortunate taxpayers is in store. On a public television program March 30th, I challenged Andrea Maker, PR chief for Champion, and a Commission member, stating that her proposal to exempt manufacturing machinery would unfairly burden taxpayers in towns so fortunate as to have a resident paper mill. Perhaps in surprise, she said the money will not come from mill town residents in the legislation the paper industry is now drafting. We had better ask where else could it be found?

The answer may lie in Maine's unfortunate experience under the current-use law for timberland, misnamed the Tree-Growth Tax. The law provides that municipalities enduring the tax shift caused by the unbelievably low forest valuations imposed by the state will be reimbursed. The money is taken from the state's general receipts which are people taxes—sales, personal income, alcohol, tobacco, lottery, and hospitals.

If the people of Bucksport and other mill towns are not to be stuck with the costs of exempting the mills, the money must be found. Where else but in the General Fund, to which our paper mills contribute nothing?

—WB

landowner may, consciously or not, give preferential treatment to that plot might be dismissed as hypothetical; in the early 1960's as a contractor on industry land, I was told to stay off such a plot by Paul Perkins, the company forester, so I cut all around it. Recently, Ron Locke, once a Great Northern forester, told me that this avoidance was common practice. We may ask, "Who were they fooling?" As you may have detected, I feel strongly that this dishonesty led to the economic catastrophe that is now the Maine forest and the rural communities dependent on it.

To return to Mr. Wright's testimony, we can extract some analysis he may have intended to avoid. He reinforces the MFS belief that, although cutting has exceeded growth in the past twenty years and will continue this deficit for at least another ten, after that the unfavorable ratio will be reversed. If you think about it, this improvement would constitute a miracle, similar to reviving Lazarus. If you draw down a capital account for thirty or more years and continue removals, nothing but an accounting gimmick can turn the deficit into surplus growth, or, nothing but a great reduction in cutting, investment in plantation forestry, and a long wait.

The language in the timber supply section is usually equivocal, if not obfuscatory. Try these excerpts:

*"Fiber availability is a function of physical abundance, supply, and demand. Over time, an efficient open market will ultimately determine the overall availability of fiber and its end use. Efficient end users producing higher value products frequently have a higher ability to pay for raw material than converters producing a lower value-added product and thus will compete more efficiently for a higher proportion of the total available supply."*

Straight economics text, O.K., but is it helpful? Here is one worth repeating, it has the flavor:

*"Physical availability of softwood fiber will be adequate to sustain established capacity, though reductions in production, displacements, and fiber substitutes have and will continue to*

*occur within the least cost effective sector. Opportunities for additional capacity based on the softwood resource are limited to non-traditional species...."*

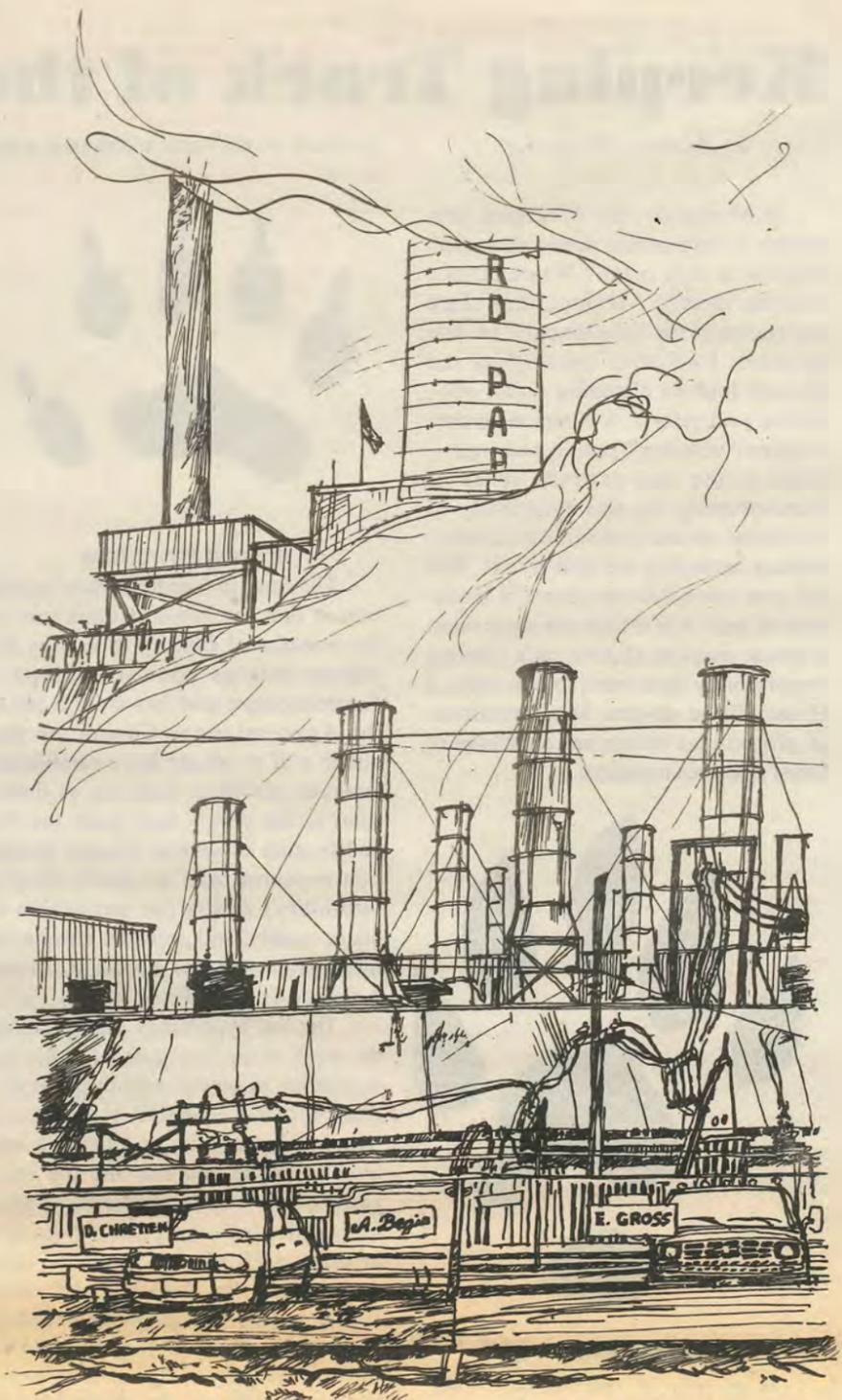
This is really the answer to the Commission's asking why the paper industry has not continued capital investment in Maine. As Commission member Edward Fox astutely observed, industry investment in 1993 of \$175 million was marginal when new paper machines costing up to \$500 million are considered. Wright has it right—the spruce and fir aren't there either to sustain present mills, or to put in new machines. As for switching to hardwood, which is all that is left, he says this:

*"Increased demand for hardwoods will escalate prices, expansion of traditional areas, and stimulation of hardwood management programs. Additional capacity based on the hardwood resource is sustainable in some regions of the state.(emphasis added) Hardwood costs in Maine are low relative to other US regions and world fiber baskets, though recent increases in demand have been accompanied by price escalation."*

The preceding hints at a source of tension among paper makers and large landowners who would export their hardwood as chips rather than build a new Kraft mill to process it. This also may include the Pingree heirs, who want expanded hardwood markets. Thus, it is possible to find members of the Paperworkers' union opposing the Sears Island terminal; while the report speaks only of existing seaports at Eastport and Portland, and a "container" port, not a bulk cargo port for wood chips. Hardwood demand is aggravated by the wood-fired boilers, the largest of which are cogenerating at paper mills. The resulting clearcuts are criminal.

Wright has some interesting observations about the workings of the industrial markets:

*"As the balance of world fiber supply shifts in the years ahead, Maine may ultimately benefit from a more level playing field among major wood producing regions of the world, unless*



*influences other than supply and demand differentially and adversely affect wood costs."*

*"A high proportion of industrial ownership tends to reduce the effect of an open market because the limited number of non-industrial owners reduces the proportion of fiber that is transacted on the open market."*

The meaning of the last sentence seemed clear to me—maybe too clear. When the Commission members reviewed Wright's work, Bruce Curley, of Boise Cascade, said to Wright, "I know what that means, but you have better put it in layman's terms." In the finished copy, Wright continues with:

*"In an open market system, the forces of supply and demand result in immediate changes in transaction prices. As the number of entities in a given market declines and the proportion of the resource that is transacted in that market diminishes, the relationship of supply and demand to market price can be masked as supply from sources other than the open market satisfy marginal demand. The high level of industrial ownership is also a negative influence relative to potential new entrants in the Maine forest products market, though to established entities this is positive."*

If the foregoing seems dry text to the reader, please be aware that it is a prescription for economic disadvantage, both for workers in the woods and for small landowners growing forest products. Wright restates the principle underlying the Maine forest economy:

*"Average power cost in Maine is 25% lower than global."*

This significant fact is omitted in the final version. It certainly weakens, perhaps refutes, the many arguments presented that high purchased power costs handicap Maine paper producers. Many mills have private hydrodynamic generating plants. Originally (1900) that was one of the factors in locating a paper mill; water to make the paper and to carry away wastes and pollutants, and spruce trees being the other legs of the tripod. While editing out this embarrassing point, the report carries (appendix H) the statement of the president of Maine's second-largest electric utility that the paper companies are part of the problem—their high-cost generating contracts are by far the largest single cause of today's high electric rates. He concludes that the cogenerating paper companies already have whatever relief from electric rates that they could reasonably expect. His strategy is to reduce or eliminate these high-cost sources. He does not speculate on the paper industry's reaction.

As a public relations battle, I conclude that this won't be a victory for the paper people. I think that their economic situation and record are so poor that a cover-up is impossible. Too many parts are sticking out of the grave. With the same breath, I add that I like the four from paper who took part a lot better than those who stayed away.

By avoidance the study confirms our worst fear: They are about out of wood.

# Keeping Track of the Vermont Legislature

by Andrew Whittaker

In Montpelier, the Woodstock generation is supposedly newly ascendant. What will this mean? When citizen activists meet in Vermont, they share war stories of the "iron triangle" of state agencies, legislative committees and favored lobbies clamping down on—choose your reform. A common pattern: citizens "winning" public hearings—often in the non-partisan sense of demonstrating the full complexity of problems at the community level—without impacting the final results. Was this year much different from the blood-bath of last? A few bills tell some tales: a Senate measure shifting milk labeling responsibility from users to non-users; a House bill on ski-area water withdrawal; property tax reform and a package of forest practices measures.



## Water Withdrawal

Observers of the House Fish, Wildlife and Water Quality Committee noted some disturbing trends in the formulation of a new policy governing withdrawal of water for snow-making.

Foremost was the negotiating of a new rule prior to full input from the public and environmental lobbies and the attempt to write statute around exclusionary ski industry-executive branch agreements. Another was the committee's deference to the ski industry's lobbyist, which in all probability stems from the industry's unchallenged assertion that its interests are one with the state's. Undoubtedly, ski areas draw money to Vermont, but the suggestion of the legislation is that all a water-user must henceforth do to win leniency in exceeding water quality or stream flow standards is demonstrate the delivery of economic benefit from water use.

Environmentalists note the importance of the principles involved is more critical than the specific impacts of ski industry water withdrawal: most such instances do not result in streams "sucked dry." Biology retains a role in setting standards but the fear is that this role is now subsidiary. More importantly for long term water policy in the state of Vermont, the Agency of Natural Resources deferred to one industry rather than taking the opportunity to forward the goals of a watershed approach in which cumulative impacts downstream and into riparian areas along streamways would be factored into policy. As citizens begin to organize their watersheds, government must play a supportive role. Hopefully, this message will be one that concerned citizens send the agency as it gathers public

comment on the water withdrawal legislation.



## Forest Practices

The story in forest practices legislation is that the House Committee on Environmental Quality & Energy did indeed enlarge upon a minimalist Senate measure and forwarded a bill to the Appropriations Committee that either will or would have established intent-to-cut filing, inclusion of timber sales in the state's land gains tax, the codification of several riparian protection measures from the state's (largely voluntary) AMPs for protection of water quality, and enlarged criteria for membership on the Forest Resource Advisory Council (FRAC).

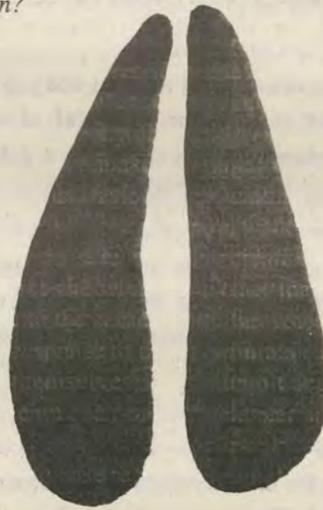
The lost opportunity here is largely the result of the Executive branch's disinclination to pursue establishment of a state forestry RoundTable. Instead, Vermont is warming up FRAC, a leftover from the mid-80s and the early years of the biomass industry. Public testimony was largely supportive of a broadened FRAC that would be commensurate to the challenge of forming forest policy for the next decades. Response to this testimony from within the iron triangle was that an over-broadened FRAC—a RoundTable in essence—is unworkable. The conclusion is that the state's Department of Forests, Parks and Recreation favors limited discussion of forest policy. [See "Vermont Snubs Public in Forest Policy Formulations"]

Industry support of an AMP approach to forest regulation, evident in testimony at the House's public hearing on forest matters, suggests another approach to conservation that FRAC may choose to ignore. From the perspective of the Northeast Kingdom, where the absence of universal or even common respect for soil, forest regeneration and biodiversity is evident—and often on the lands of corporations staffed by foresters—we obviously need AMPs that protect all components of forest health.

Moreover, a cursory expedition through the field with existing water-quality AMPs will indicate their current inadequacies. Testimony to the House subcommittee by several loggers to the effect that far fewer than the 90% of operators said by an industry lobby to follow these AMPs actually do so, or even know they exist, also indicates the need for FRAC to ponder mandatory certification procedures for loggers.

As we head to press, it seems likely that most logging regulation portions of the House bill will die in the hands of either the House Appropriations or Agriculture Committee. It should be noted that one of the first official actions of FRAC was to recommend such a pruning job to Appropriations—while expressing "vehement" support for property tax reform. *Has the environ-*

*mental community earned nothing for its membership in the tax reform coalition?*



## Property Tax Reform

Last year, Senate Republicans nixed property tax reform based on a shifting of education funding toward income taxes. This year, they killed reform passed by the House that took the alternative route of sharing the property tax base on a state level to even inequities. The question is, how seriously does the Senate wish to redress the pressures placed on the rural economy by the outmoded property tax?

While there is some disagreement within the regional environmental community about property tax reform as a burning priority, Vermont activists tend to be found in the fusion of agrarian and progressive concerns. Preservation and empowerment of a land-based economy is indeed a priority here that could and should be furthered by property tax reform. Communitarians are perplexed by the Republican party's disavowal of a local income tax in particular and are in general vexed by its commitment to tinkering up the status quo—which is fostering and perhaps feeding upon the steady dissipation and decline of the rural economy.

However, environmentalists must wonder whether their support for property tax reform has been taken for granted by others sharing the common goal of a move toward use value appraisal or, at the least, full funding of current use. Factors beyond an outmoded system of taxation are driving abusive forestry, for instance. Yet, when it came to legislation this year, environmentalist concerns fell victim to economic expediency, "political reality," or "need for more study."



## BGH

People concerned about the impact of Monsanto's synthetic bovine growth hormone on both the wholesomeness of

milk and the survival of the small dairy farm will be encouraged by the Vermont legislature's appropriation of the \$250,000 it will take to defend the state's existing milk labeling law in court against a threatened Monsanto law suit. The 75% of Vermonters who support a labeling procedure will be perplexed by the follies surrounding a Senate Agriculture Committee attempt to reverse the current law and place the onus of certifying use of BST on the 90% of Vermont farms not using the hormone.

Perhaps the saddest part of the Senate effort, and its sly promulgation, is that its key sponsor, Senator Bahre of Addison County, showed little desire to consider cumulative impact of BST use on either the small dairy producer or the human body. With ample testimony to the fact that milk from BST-treated cows is identifiably different from other milk and that people desire to know which is which, the Senator debated all who called in on Vermont Public Radio's Switchboard program—none of whom expressed support for his proposal. Bahre plowed forward with the assertion that opponents of his measure were irrationally opposed to technology or simply didn't know their own minds.

Senator Rivers of Windsor County, from a farm family herself, seems to be in a distinct minority on the Senate Agriculture committee when it comes to considering the wider effects of BST. For those who do not know, milk prices are skidding and the future of New England's small family dairies hinges on the fate of the Regional Compact bill in Washington. This legislation would cut New England milk pricing loose from the national surpluses—augmented by BGH—which threaten, through their dampening of prices, to diminish the number of Vermont dairies by 10% this year. Environmentalists have a stake in this issue. So do all those who fear the increasing corporate dominance of food production.



## Miscellanies

Senator Vince Illuzzi sponsored an interesting bit of legislation this session that seemed to get nowhere . . . The popular Northeast Kingdom legislator wanted to sell 10 acres of a Wildlife Management Area to the town of Holland for a gravel pit.

Champion International, a local landowner struggling to feed its paper mills, wants to bring the industrial plantation to northern Vermont and New Hampshire, with \$600,000 budgeted for "intensive management" methods. Wonder what went wrong with the valid silvicultural tool we keep hearing about. Other Paper Industry news: Champion hosted a legislative breakfast in Vermont recently, presumably to promote itself as a corporation committed

## Takings Bills Killed in NH & VT; Still Alive in Maine

by Richard Ober

Regulatory "takings" bills—a prominent plank in Newtonian politics—are going nowhere in Concord and Montpelier. The New Hampshire Senate overwhelmingly killed a bill in March (the third defeat in three years) and two proposals in Vermont never made it out of committee. In Maine, however, a takings bill is still alive.

Takings advocates claim that Fifth Amendment protection against confiscation of property by the government should be extended to cover any economic loss due to environmental and other regulations. Their argument goes like this: When the state needs my land for a road, the Constitution requires the government to pay me because I have lost all value. Ergo, if a law limits my ability to use land however I see fit, the government should pay me for any lost value.

Fortunately, the U.S. Supreme Court has concluded that this argument fundamentally undermines the Constitutional balance between public and private rights. Beginning in the 1920's, the Court has ruled in numerous cases that a taking does not occur unless *all* economic value is lost. In a letter last fall, 33 state attorneys general—including those in ME, NH, VT, and NY—urged Congress to reject takings as "radical" measures that would "severely constrain the government's ability to protect the environment and public health and safety. They would also greatly increase the cost of government... with no corresponding benefit."

But unconstitutionality and the advice of legal experts apparently means little in Congress these days. In March, the U.S. House passed a bill requiring taxpayers to compensate landowners any time the Endangered Species Act and certain federal wetlands rules limit the economic value of their land by 20%. At this writing the bill is headed into the senate where Senator Phil Gramm has a similar notion.

Gramm and other GOP White House would-bes probably plan to campaign on the issue in New Hampshire, thinking it's an easy sell in the conservative Granite State. But they're forgetting good old Yankee

common sense and frugality. According to a study commissioned by the New Hampshire Wildlife Federation, even a modest takings bill would cost the state \$2.7 million. If the law applied to municipalities, small town budgets could double. Try selling *that* idea in rural New Hampshire, Senator. (For a copy of "The cost of Takings Legislation to New Hampshire Taxpayers," call the NHWF at 224-5953.)

Local officials in Maine understand the disastrous consequences of these bills. That's why the Maine Municipal Association has joined conservation groups, the League of Women Voters, AFL-CIO, the Maine Public Health Association, and other groups who are fighting the idea in Augusta. Supporters of takings legislation include the Maine Realtors Association, the Maine Forest Products Council, and the Maine Farm Bureau. The bill due to hit the statehouse as this issue of the *Forum* goes to press (mid-April) would require state and towns to pay landowners should regulations reduce potential value by 50%. The details may change, says Judy Berk of the Natural Resources Council of Maine. But it will be a tough fight.

While the NH and VT bills are dead for now, they're sure to be back next year; property rights groups are encouraged by Congress' ill-advised support and are unlikely to let go. For more information: NH—Esther Coles, NH Wildlife Federation, (603) 224-5953; VT—Steve Holmes, Vermont Natural Resources Council, (802) 223-2328; ME—Judy Berk, Natural Resources Council of Maine; NY—Peter Bauer, Residents Committee to Protect the Adirondacks, (508) 251-4257. the National Wildlife Federation, National Audubon, and Americans for the Environment are taking the lead in Washington, DC.

*Richard Ober works for the Society for the Protection of New Hampshire Forests. He serves on the planning board in Webster (pop. 1,400), where the thought of paying landowners and developers to follow the town's zoning ordinance is met with a mixture of incredulity and amusement.*

## Vermont Legislature

to sustainability. Forest activists who have been attempting to meet with Governor Dean since Thanksgiving to offer *their* views on sustainability are wondering if one must smell like sulfur and chlorine to acquire political standing. Finally, rumor has it that, if the Searsport woodchip-export facility were to be built, some one of Maine's paper producers might be interested in closing down in Maine and setting up shop in Haiti.

Down in Chile, a professor who has been spearheading a public information campaign on the possible dangers of a growing ozone hole has brought down the wrath of the local tourist industry which dismisses his concerns as "alarmist" and "irresponsible." Some call him an "ecoterrorist." We note that Paul Revere was also an alarmist.

Interesting concerns about the Information Highway's "ToGether

Net" are being expressed in Vermont, where the network has offered to facilitate communications amongst legislators and grassroots activists, the same pitch it is supposedly making to the UN and eco-activists the world over. These boys and girls have deep pockets apparently, and just want to help out. Vermont activists accustomed to boiling the shoelaces are suspicious of the funding and wonder whether freedom of information laws will govern all this TeleCommuning.

Well, as we all know, it takes an honest & informed press to maintain democracy. Maybe Vermont has problems. We hate to name names but must question whether the Northeast Kingdom's *Caledonian Record* is even interested in following the evolution of the forest policy issue, as it continues to force its coverage of forest meetings and hearings into an increasingly moldy mold of "enviros" versus "industry."



## New Book on the Northern Forest to Be Published in May

*The Northern Forest*, a new book written by David Dobbs and Richard Ober to be published this May by Chelsea Green Publishing Company of White River Junction, Vermont, should prove absorbing reading to all *Forum* readers. The book takes close looks at several people—a mill worker, a couple of biologists, a forester, several loggers, and a tree farming family—scattered throughout the Northern Forest region, and through their situation, explores the dilemmas facing those who want to see the Northern Forest used more intelligently.

Dobbs and Ober spent hundreds of hours in the woods with their subjects, and in most of the book they let their intimate, often moving, portraits of these people make their own, sometimes ambiguous points. The stories leave no doubt, however, that despite the complexities of the Northern Forest "issue", something fundamental must change if the region is to regain its ecologic and economic health. In the book's final chapter, Dobbs and Ober offer some suggestions; while these may ruffle a few feathers (some within the environmental community), they are thought-provoking and should stir healthy debate.

Anyone interested in the Northern Forest will find the book absorbing and provocative. Writer Noel Perrin (*First-Person Rural* and many other works) called the book "astonishing" in the *New York Times Book Review*, and writes that "Dobbs and Ober have given a vivid picture of [this] vast forest. This is an exceptionally good book, wonderfully written and remarkably well informed." And Brendan Whittaker, forester, activist, and Vermont's environmental representative on the Northern Forest Lands Council, said that, "I don't think that I've seen a better-written reflection of what things are like in the woods. Dobbs and Ober have tapped the authentic voices of our region. This is the book I would hand to any visitor and say 'Here is the life we lead here; this is the way it really is.'"

An excerpt will run in an upcoming issue of *The Northern Forest Forum*. Copies of *The Northern Forest* may be ordered (for \$23, plus \$4 for shipping) from Chelsea Green Publishing Company by calling 800-639-4099 or by sending a check to Chelsea Green Publishing Co., 52 LaBombard Road North, Lebanon, NH 03766. Copies are also available through most bookstores. Organizations interested in having the authors speak should call Peggy at Chelsea Green at 802-295-6300.

Seldom in the CR's reportage is it suggested that many people approach these issues from an ethic of community—a value we admittedly don't find in the paper's editorials, either. The public is thus deprived of a much larger, shall

we say realer and truer, story . . . one not without contention but certainly much more dynamic than the kind of sleepy, perhaps dopey, coverage emanating from what local fans term the *Caledonian Retch-ed*.

# State of the Adirondacks: A Political Transition Begins a New Chapter for the Adirondack Park

by Peter Bauer

The change of administrations from 3-term Democratic Governor Mario M. Cuomo of Queens to Republican Governor George Pataki of the Hudson River town of Peekskill has shaken up New York State management of the Adirondack Park. In the Adirondack Park, which is a patchwork of public Forest Preserve and private lands, many town supervisors and anti-protection advocates are claiming credit for the Pataki victory; he won statewide by a 150,000-vote margin. But in the Adirondacks Pataki won big, posting numbers a third higher than Cuomo. Now, they say, it's pay back time; it's their turn to call the shots over all Park affairs.

Mario Cuomo picked his issues carefully in the Adirondacks. Unfamiliar and personally uninterested in the outdoors, in a 20-year state career as Secretary of State, Lieutenant Governor, and Governor, Cuomo never hiked in the Adirondacks, but approached the Adirondacks weighing moral and political considerations. Land acquisition was something the present could give to the future; it was an issue of generational trust. Cuomo oversaw land acquisition of 200,000 acres for the Forest Preserve and purchased another 100,000 acres in conservation easements during his tenure. Acid rain—a case of one state's pollution harming another state's environment—was a sin. Cuomo negotiated agreements with midwestern states to limit their emissions and cut New York's sulfur emissions by one-third.

Essentially a populist at heart, who lectured that the appropriate role of government is to assist and leaven working people, Governor Cuomo never parted intellectually from the plight of New York's poor, noting in his famous 1984 Democratic Convention keynote speech that Ronald Reagan had forgotten the "abject poor of Essex County" located in the central Adirondacks. Faced with resistance that contained elements of populist and working class sentiments to his own Adirondack commission's recommendations to expand protections for the Adirondack Park in 1990, Governor Cuomo first sought compromise and then abandoned efforts altogether. Cloaked in populism, Adirondack anti-protection groups are organized and supported by corporate landowners, banking, real estate, and lobbying interests.

What does the new Governor plan for the Adirondack Park? Facing a \$4 billion state budget deficit and seeking to give another \$1 billion in tax cuts, Governor Pataki has not yet turned his attention north of Albany. But before running for Governor though, Mr. Pataki posted a strong environmental record as a state legislator. In 1988 he was even honored by the Environmental Planning Lobby (now Environmental Advocates) as its Conservationist of the Year. The Pataki Transition Team included individuals from Environmental Associates and the Nature Conservancy. While a state Senator he was a co-sponsor of the bill creating New York's Environmental Trust Fund, which provides funding for

water quality, solid waste, recycling, land acquisition, among other environmental needs. In the state Assembly Pataki was a major player supporting the Hudson River Valley Greenway.

## Many Trouble Spots in Adirondacks

While Governor Pataki has not yet turned his attention to the Adirondacks in a deliberate, meaningful way, one thing that's clear is that there are many hot spots in the Adirondacks awaiting attention.

**Water Quality Declines:** Water quality continues to degrade in many of the Adirondack Park's most spectacular lakes. A recent RPI Freshwater Institute report projected that Lake George is aging at a rate of 1,000 years per decade. Schroon Lake, the Fulton Chain of Lakes, Upper Saranac Lake, Lake Champlain are all under study and have reported declining water quality. Cumulative impacts of non-point source pollution and the lack of watershed management and planning programs are pushing these lakes over the edge. Beyond concerns about aquatic ecosystem deterioration across the Park, a more troubling fact is that simple baseline data has never been assembled on the majority of the lakes and aquatic systems in the Adirondacks. We have

little idea what we're losing.

**Wal-Mart:** Many who are opposed to new protections for the Adirondack Park point to the small decline in recent applications to the Adirondack Park Agency (APA) as proof that the development boom is over. But the two largest commercial developments in Adirondack history since the railroads went in are currently under local review. Two Wal-Mart superstores are under review in Lake Placid and Ticonderoga. These predatory superstores illustrate the loopholes in the APA Act. While these superstores will have an enormous economic impact by eradicating small businesses in these and neighboring communities, both stores have been designed to successfully skirt APA review, solely issues for local planning boards. Wal-Marts currently circle the Adirondack Park, located in Glens Falls, Plattsburgh, Wilton, Johnstown, Utica, Watertown, and Massena.

Wal-Mart's decision to locate in the Adirondacks is particularly unfortunate given the findings of a recent Rockefeller Institute of Government study of employment characteristics in the Adirondack Park. The Rockefeller Institute study was the first to study just the Adirondack Park and examine individually the many towns that straddle the Blue Line to ascertain an exact

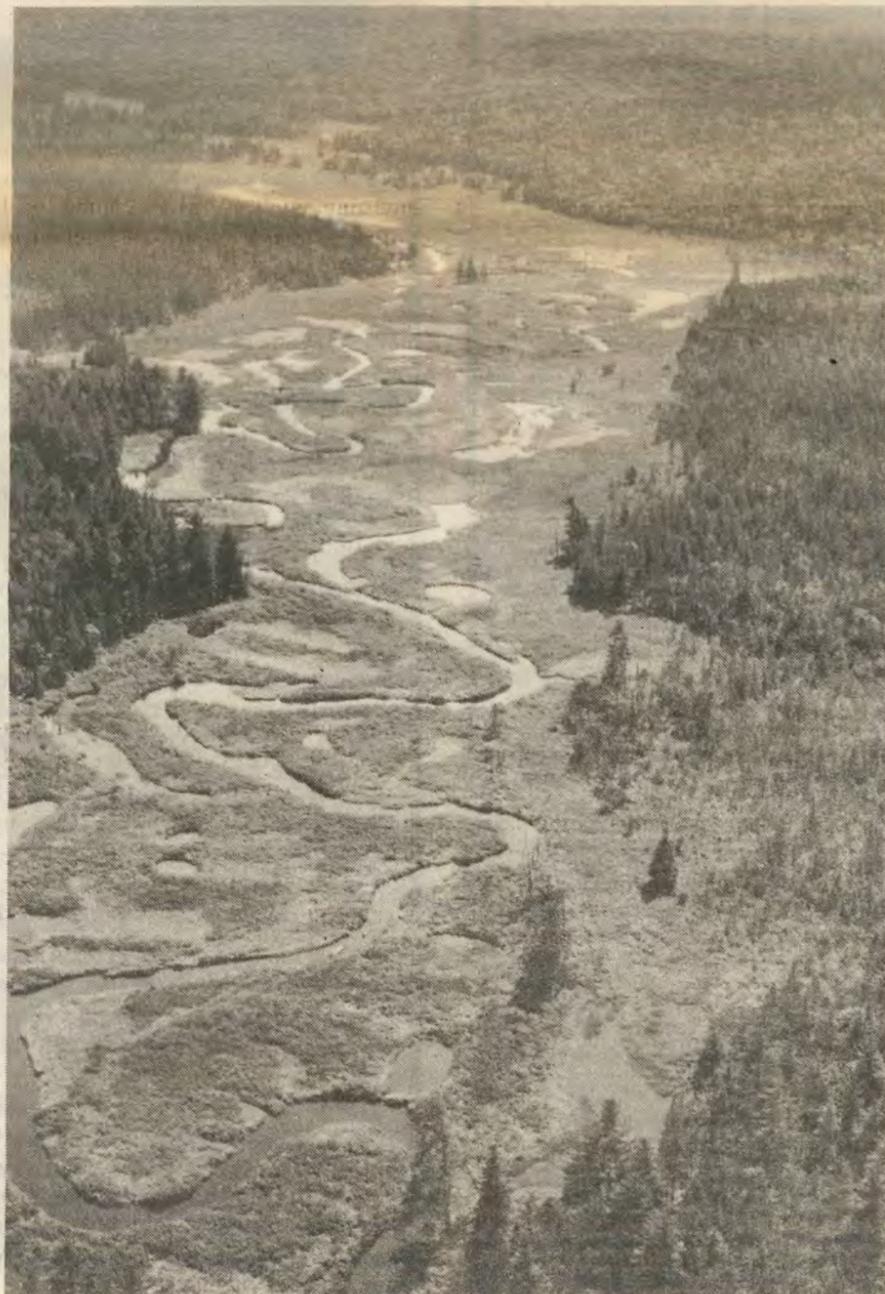
count of jobs inside and outside the Park. Between 1989 and 1992, the towns of the Adirondack Park experienced growth in employment and payroll that exceeded both the New York State and national averages: employment growth rate: NY, -6.3; US, 0.4; Adk, 1.6; payroll growth rate: NY, -1.7; US: 1.8; Adk: 2.2. Overall, between 1985 and 1992, the Adirondack Park population grew by 4,400 and the number of jobs grew by 8,000. While government (local, state, federal) is responsible for one-third of all jobs in the Adirondacks (due to a number of prisons and mental health facilities), the area of the most impressive job growth is small business, which increased by more than 25 percent. Wal-Mart will disrupt business patterns and opportunities for many small businesses in the Adirondack Park. It's important to note that this period of documented job expansion coincided with public acquisition of over 150,000 acres of land for the Forest Preserve and in conservation easements, flying in the face of the persistent plaint that land acquisition destroys jobs.

**Lease Camps Proliferate:** The Forest Preserve, 2.5 million acres of constitutionally protected, mostly wilderness areas in the Adirondack Park, provide immense opportunities for public recreation. At the same time, the abundant availability of public lands—the Forest Preserve never closes, is open 24 hours a day, 365 days a year—has created a terrific market for exclusive-use leases of backwoods ponds, lakes, and remote lodging. All Adirondack timber companies lease hunting camps, usually rented by a club of individuals primarily for hunting and fishing. Leased camp cabins are not permanent structures, or at least aren't supposed to be. Some clubs share common lands, others vigilantly post their exclusively leased tracts. Lease income is big for landowners: for at least one Adirondack timber company, lease income pays property taxes, infrastructure costs, and all harvesting/management costs.

For many years, with just a few exceptions, these hunting camps were rustic tarpaper shacks heated by wizened potbelly stoves. As land values have continued to increase, and exclusivity values skyrocket, timber companies have raised lease rates. Hard pressed clubs either expand their members or rent smaller tracts. More members mean more buildings; some hunting camp compounds are mini-villages. Smaller tracts result in more camps in one general area, breaking up open space. Some timber companies have also found that rental parties are willing to pay to build on leased land. In this way some "hunting camps" more resemble vacation homes as they have sliding glass doors, large decks, full kitchens, pine siding, garages, and are perched on lakeshores. One outfit near Long Lake is attempting to sell 99-year leases and surround Moose Pond with 75 "camps."

Currently, over 500,000 acres of forest lands are advertised for sale. No comprehensive open space protection program to stem this tide is close at hand.

## Big Changes at the APA: The Rubber Stamp Cometh



The Oswegatchie River winds through a boreal forest in the Five Ponds Wilderness in the Adirondack Park which is in the heart of the Bob Marshall Great Wilderness proposed by the Adirondack Council on page 14. This photo © by John McKeith appears in *The Great Northern Forest*, a color photo celebration of ten wild areas in the Northern Forest, published by National Audubon Society, Sierra Club, & The Wilderness Society. Copies are available from: National Audubon Society, 1789 Western Ave., Albany, NY 12203. Tel. 518 869-9731.

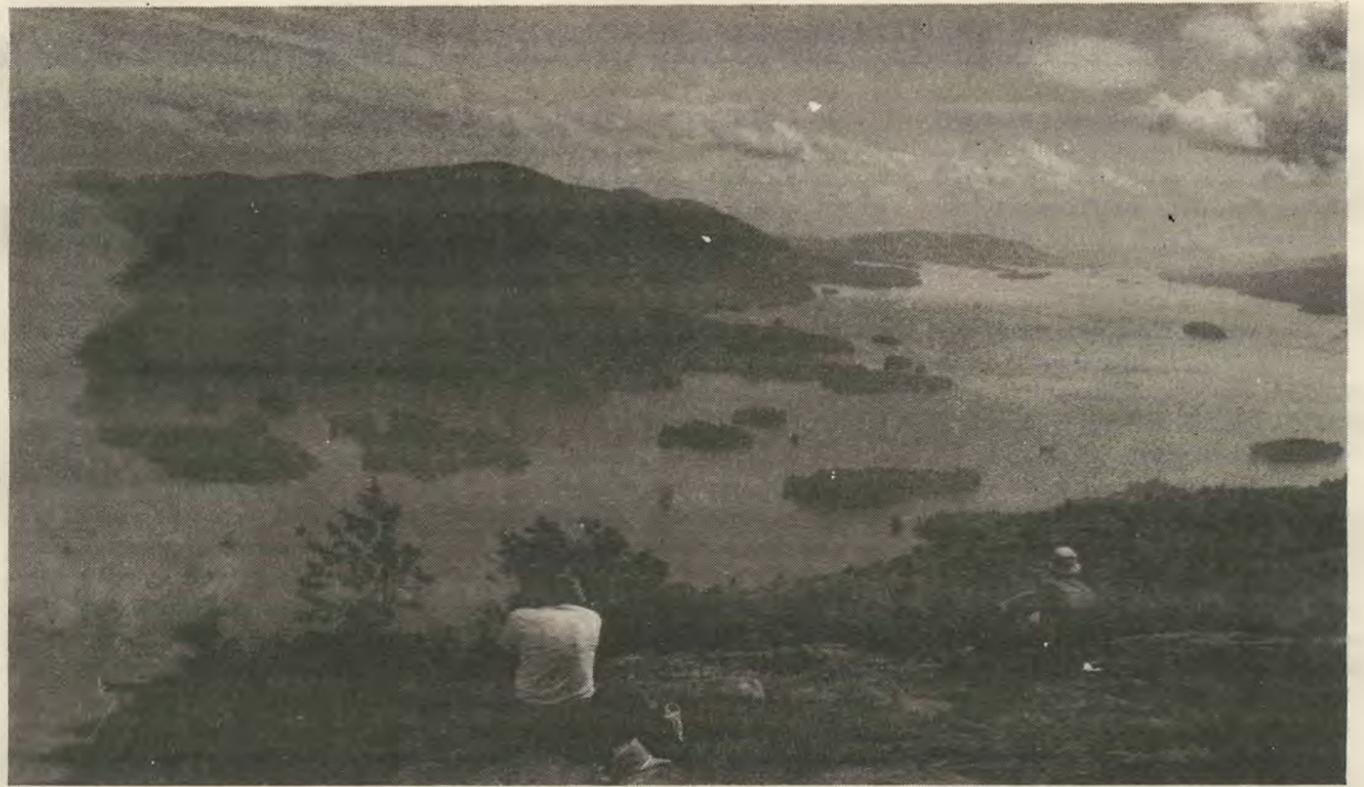
Along with the largest commercial projects in the history of the Adirondacks, the largest project ever in an area zoned Rural Use (8.5-acre zoning) by the APA was approved this past February. By leaving 650 acres of mostly unbuildable land (slopes, cliffs, wetlands, poor soils) in open space, this developer received APA approval for a suburban-design subdivision that clusters 57 units in a 90-acre area just above Oven Mountain Pond outside of the hamlet of North Creek. This development is larger and more concentrated than many existing Adirondack Park hamlets (bigger than the one I live in) and, in effect, created a new hamlet in an area that the APA Act states is supposed, along with Resource Management areas, to "provide the essential open space atmosphere that characterizes the park."

The Oven Mountain project illustrates the volatility of APA law. The APA Act calls for "relatively small clusters or large lots" as the appropriate development pattern for Rural Use areas (approximately 800,000 acres in the Adirondack Park). What exactly a "relatively small cluster" is has never been articulated by the APA or determined by 20 years of precedent. The APA Act is filled with other such nebulous language, which results in the investment of a tremendous amount of discretion in the hands of individual APA commissioners, who ultimately vote up or down on projects before the APA. No other regional land-use regulatory body in the U.S., such as the New Jersey Pine Lands Commission, Washington's Columbia River Gorge Commission, the California Coastal Commission, among others, invest this level of individual discretion and interpretation in its commissioners.

The APA was created by an all-Republican New York government in the early 1970s, backed heavily by then-Governor, and perennial presidential candidate, Nelson Rockefeller. But the Democrats are the ones though who have shepherded the bedraggled regional zoning agency through the last two decades amidst varying assaults by Adirondack Republican legislators decrying their loss of home rule. Those opposed to the APA for the last 20 years now have a friendly Governor and are in position to radically alter how it administers its law and authority.

To measure the impact of the APA, hard numbers are necessary. It's been a mixed bag. In its essence, APA law remains an uneven zoning law for an area the size of Vermont and is a law filled with loopholes large enough for many a bulldozer to pass. The APA was designed to review only the largest developments or those in the most environmentally sensitive areas. Over the past 20 years, the APA has reviewed less than forty percent of all development in the Adirondack Park out of a 20-year average of 1,000 new dwellings per year. From 1972 to 1992, the APA reviewed and issued permits for 6,272 dwellings out of over 20,000 built. Between 1968 and 1992 the number of houses in the Adirondack Park grew by 69 percent, from 45,886 to 77,269. What does the next 25 years hold?

A weaker APA may very well hold the Park's fate. Clearly, much depends upon the composition of APA commissioners. There's 20 years of penned-up development in the Park that given a



*The Narrows—Lake George. Photo by Paul Miller*

weaker APA, one where commissioners rule either arbitrarily or simply rubber stamp development, may well explode. Over the next four years Governor Pataki will be able to replace every current APA commissioner. Prominent among those publicly campaigning for an APA slot is Peiter Litchfield, owner of 15,000 acres, five lakes and a castle in the central Adirondacks. He is also President of the Blue Line Council, a group of timber companies, real estate, banking, lobbying, and construction interests, which has waged a bitter campaign against the APA. Several local government representatives noted for their opposition to the APA are also looking for commissioner spots.

### **The Governor and the Park: Their First 100 Days**

One of Governor George Pataki's first house-cleaning acts was to hang prominently on his new office wall a portrait of famed conservationist and former New York Governor and U.S. President, Teddy Roosevelt; a gesture well received by environmentalists. But, since then, the new Governor has yet to articulate his vision for the Adirondacks or outline a discernible course of action. So, one can only evaluate his commitment and vision for the Park based on relevant items in his first budget and by appointments to state government positions responsible for management of the Adirondack Park. In his proposed budget, still under negotiation as this issue of the *Forum* went to press, Governor Pataki slammed the Adirondack Park.

**The Governor and the APA:** Governor Pataki initially proposed chopping the APA budget by 16 percent, lethal cuts for a 60-person agency and at 16 percent well beyond the 3- to 6-percent cuts of most other state agencies; the Department of Energy is being totally eliminated. Reacting to pressure, the Governor restored funding for eight or nine APA positions. The Governor also did not include local planning assistance funds and eliminated the Office of Rural Affairs, which created the Rural Assistance Information Network (RAIN), a successful program heavily utilized in the Park for local planning and town administration training.

**Raiding the Environmental Trust Fund:** On the campaign trail last fall,

candidate Pataki stated unequivocally that the New York State Environmental Trust Fund (ETF) should be expanded (the ETF was inaugurated at \$25 million and will grow incrementally to \$96 million in 1996). In his first budget, Governor Pataki has proposed to divert this year's scheduled increase to the state general fund and to also pay \$1 million worth of Department of Environmental Conservation (DEC) staff from it as well. Needless to say, these are two terrible precedents.

In the Adirondacks, many are looking to the expanded ETF with hopes of protecting both the region's environment and economy. Many Adirondack environmental groups and some local political leaders share an interest in establishing a conservation easements category in the ETF, which could be used to purchase the development rights to timber lands thereby protecting open space as well as helping to provide a sustained fiber supply for the region's mills. An active easements program is a big northern New York job retention strategy. Easements are also part of the equation for those strategizing about how to build a value-added wood products manufacturing industry in the Park.

Currently, major corporate landowners such as International Paper (owner of 375,000 acres in the Adirondacks), Champion International (150,000 acres), Domtar (110,000 acres), all have indicated that some of their lands are on the market. They all have indicated a desire to sell conservation easements, but New York has no guaranteed funds for such purchases if the ETF is raided. In the recent past, other willing sellers in the Adirondacks have been frustrated by New York's inability to close a deal. The landowner of the 14,000-acre Follensby Pond tract gave New York two options on that property over the last several years, but the state managed to bungle both by attempting to stretch out payments. The landowner responded by breaking off negotiations, lacking confidence in New York's ability to complete a deal.

### **Pataki's Environmental Appointments**

**None to APA Yet:** Governor Pataki has not yet turned his attention to selecting new APA commissioners. When he does, he will have an opportunity to

replace immediately as many as six of the eight appointed commissioners. These are all commissioners who are serving despite expired terms; wrangling over replacements or new terms between Adirondack Senator Ronald Stafford and Governor Cuomo tied up many APA nominations and confirmations throughout Cuomo's tenure resulting in some APA commissioners serving in expired terms.

Many of the Park's strongest conservationists at the APA are serving expired terms. Currently, they are continuing to serve, but expect a decision to be made on their futures once a budget is passed. It's almost certain the current APA Chairman, 5th-generation Adirondack resident and ardent supporter of Park protections, John Collins, will be replaced as chair; his future as a commissioner is also uncertain. Likewise, APA Executive Director and brilliant land-use lawyer, Robert Glennon, seems almost certain to be replaced. The APA is vulnerable to losing its most capable and knowledgeable commissioners and employees; the possibility of an agency in chaos from sweeping, short-sighted changes is palpable.

**New DEC Commissioner:** At the Department of Environmental Conservation (DEC), Governor Pataki picked Michael Zagata as his new Commissioner. Mr. Zagata, a wildlife biologist, former National Audubon Washington lobbyist, came to state government after a 14 years working for the oil and gas industry. There he campaigned to open up the Arctic National Wildlife Refuge for oil drilling. He is also a proponent of mitigation banking, a concept where protected wetlands can be developed in exchange for industry creating new wetlands in some other location. Mr. Zagata also lobbied unsuccessfully on behalf of off-shore oil drilling interests that sought to dump scrap materials in various ocean locations as a way to artificially stimulate reef formation. In his DEC position, Mr. Zagata has already called for land swaps in the Adirondack Park where Forest Preserve lands would be exchanged for private timber tracts; such swaps require a constitutional amendment. Mr. Zagata has also expressed his support for starting the Forest Roundtable forums, a

*Continued on page 14*

# 400,000-Acre Bob Marshall Great Wilderness Proposal for Adirondacks

*Ed. Note: The following proposal to create a Bob Marshall Great Wilderness is reprinted from 2020 Vision: Fulfilling the Promise of the Adirondack Park, volume 2, The Adirondack Council, 1990.*

The State of New York should create a 408,777-acre Bob Marshall Great Wilderness by consolidating the:

- 101,171-acre Five Ponds Wilderness
- 14,625-acre Pepperbox Wilderness
- 50,100-acre Pigeon Lake Wilderness
- 6,676-acre Wilderness Lakes Primitive Area
- 1,042-acre Lake Lila Primitive Area
- 50-acre Buck Pond Primitive Area
- 10-acre Beaver River Primitive Area
- 800-acres of the Hitchens Pond Primitive Area
- 38,970 acres of Forest Preserve presently classified as wild forest
- 16,228 acres of recently-purchased Forest Preserve not yet classified.

In addition, the State should purchase 178,310 privately-owned acres from 22 owners.

The Bob Marshall Great Wilderness would be the largest designated wilderness area in the eastern United States north of the Everglades. It could sustain viable populations of most (maybe all) species of animals endemic to the Adirondacks. It would contain nearly all Adirondack ecosystems as well as 441 lakes and ponds, 35 miles of designated wild rivers, and 36 miles of designated scenic rivers. It would be permanently safeguarded as the wildest, most remote region in the Adirondack Park.

A commitment by the State of New York to the Bob Marshall Great Wilderness would be a resounding reaffirmation of the value of preserving what's left of our natural environment. Such a wilderness cannot be established overnight, of course. But with a commitment to its eventual creation, an acquisition plan could be implemented reflecting the utmost consideration for the 22 landowners involved. The proposed boundaries of the Bob Marshall Great Wilderness are based on hundreds of hours of field investigation, aerial survey, air photo interpretation, and study of topographic maps. Many factors were considered in the final decision, among them:

**A. Ecological Integrity**—Watershed units were emphasized, either entire drainages or half drainages where split by a major stream, in boundary selection.

**B. Size**—Unlike other wilderness boundary determinations in this study, maximizing total acreage was deemed absolutely essential, largely for ecological reasons. The extent of roadless area is critical to the survival of such wildlife species as the timber wolf and cougar, species that should be reintroduced to reflect the primeval Adirondack environment. This is basic to the concept of a "Great Wilderness."

**C. Patterns of Public Use**—Boundaries were chosen to minimize impact on existing public use. Only four miles of public roads would be closed. The few snowmobile trails that must be

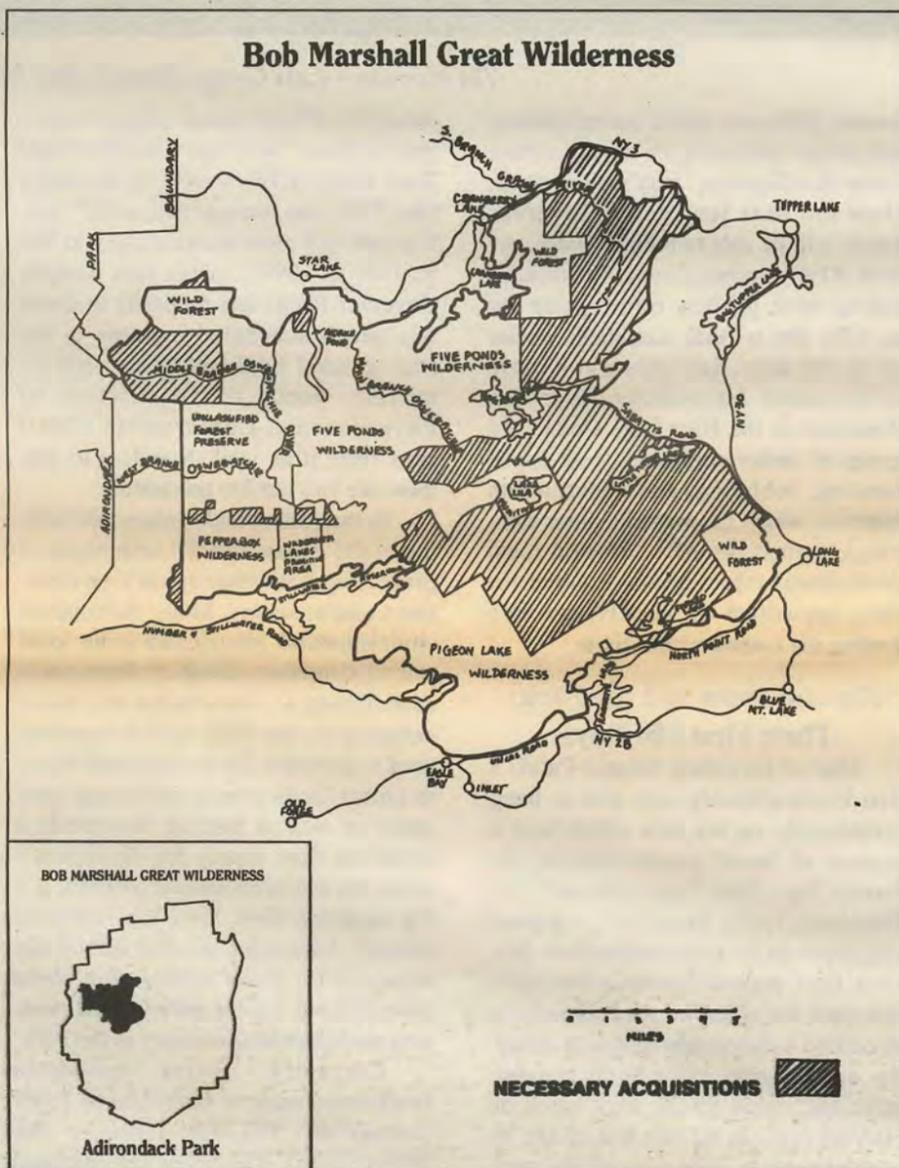
closed for the area to qualify for wilderness designation should be relocated nearby outside the wilderness.

**D. Impact on Forest Industry**—Many areas adjacent to the proposed wilderness qualified but were omitted to minimize the proposal's impact on the raw material resources of the local forest industry. Of particular importance are forest industry lands adjacent to the proposed wilderness in Lewis County. However, if these 26,000 acres are to remain in private ownership outside the proposed wilderness they must be protected as a permanent open-space buffer through the use of conservation easements. Public ownership of such easements will prevent future development while allowing present use to continue.

Marshall Great Wilderness:

- Can be defended on ecological grounds, including provisions for restoring and sustaining extirpated species;
- Provides public access to lands and waters hitherto closed to public use;
- Opens many miles of canoe routes closed to the public for nearly a century;
- Leaves over 50,000 acres of productive timberlands (which might have been recommended for wilderness inclusion) available to the local forest industry;
- Provides for increased mileage of recreational roads, such as the Middle Branch-Long Pond road, to be open to public use;
- Remains buffered by a substantial area of private land suitable for sustained timber production (but not for subdivision or development).

Public use of motor vehicles in the buffer zone should be restricted to main haul roads to minimize threats to the wilderness and wildlife.



Wild Earth magazine invites individuals and businesses to support Adirondack conservation through its Buy Back The Dacks fund.

The Adirondack Park encompasses six million acres, an area larger than Yellowstone, Yosemite, Grand Canyon, and Olympic National Parks combined. But only 42% of the Park is owned and protected by the state of New York as Adirondack Forest Preserve—and of this amount, less than half is designated Wilderness. The remainder of the Park is vulnerable to development. Unfortunately, the state of New York has not set aside sufficient funds to purchase private land for sale, even though land prices are still very low. (Wildlife habitat can be secured for \$100-500 per acre.)

Buy Back The Dacks is a campaign dedicated to keeping the Northeast's crown jewel "forever wild." All money raised by the fund is transferred to the Adirondack Nature Conservancy/Adirondack Land Trust, a non-profit partnership devoted to preserving the plants, animals, and natural communities of the Adirondacks through land purchases and conservation easements. In the true spirit of grassroots activism, Buy Back The Dacks donors have already helped preserve two significant areas in the Adirondack Park, a rare pine barrens ecosystem and shoreline habitat on Forked Lake.

Buy Back The Dacks...a people's fund working to protect biological diversity and wild habitat for all Adirondack natives.

For info. or to send contributions:  
 Buy Back The Dacks  
 Wild Earth  
 POB 455  
 Richmond, VT 05477

**Keep it Wild. Buy it.**

## Adirondack Transition

Continued from page 13

recommendation of the Northern Forest Lands Council.

**Bendick Removed From APA:** Former Deputy Commissioner, Robert Bendick, has been retained by Mr. Zagata, but has been demoted. Mr. Bendick, the chair of the Northern Forest Lands Council, successfully shepherded the New York Open Space Conservation plan through many difficult trials. In his new role, Mr. Bendick will no longer represent DEC as an APA commissioner.

**Pollution Protections Weakened:** Commissioner Zagata is committed to streamlining DEC environmental law and pollution control and investigation programs as part of a larger regulatory reform effort. DEC has already begun to cut its pollution investigation units. Likewise the new Republican Attorney General, Dennis Vacco, has gutted New York's nationally acclaimed toxic's investigation's unit at the Attorney General's office. New York is moving into a phase of voluntary compliance with state and federal pollution law.

**Pataki—Friend of the Park?** The individual who occupies the Governor's chair in new York State has enormous influence over the Adirondack Park. The Governor

nominates and the Senate approves all APA commissioner seats. The Governor allocates funding in the ETF. Executive orders by the Governor set policy for how state agencies treat the Park in such areas as road maintenance and ski-area operations, just to name a couple. Throughout its first 100 years, the Adirondack Park has never experienced a Governor hostile to its protection and has enjoyed a legacy of bi-partisan protection. Legendary governors such as Teddy Roosevelt, Al Smith, Franklin Delano Roosevelt, Averill Harriman, John Dewey, and Nelson Rockefeller, and Mario Cuomo have all been great friends to the Adirondack Park. Just three years ago, senior Adirondack Republican legislators, now close to the new Governor, successfully scheduled Senate committee votes on abolishing the APA. The question for the future is: Can the Adirondack Park survive without a friend in the Capitol? Time will tell, but a new era has opened for New York's bold experiment of people living within a protected landscape, the Adirondack Park.

Peter Bauer directs the grassroots Residents' Committee to Protect the Adirondacks. The RCPA can be reached at POB 27, Main St., North Creek, NY 12853. Tel. 518 251-4257.

# Of Parks and People & Connection to Place

by Mitch Lansky

As we debate the need for various types of reserves as part of a strategy to protect biodiversity in our region, I suggest we should also debate who controls the reserves and for whose benefit. Reserves and parks and the struggle for power have a long history. That history can be instructive to us.

## Enclosure

In English law, the word "park" refers to an enclosed area of land, held by authority of the king or by prescription, stocked and preserved for hunting. Henry David Thoreau, who suggested a park for Maine, was aware of this previous use of the word and referred in *The Maine Woods* to kings "sometimes destroying villages to create or extend" their game preserves.

This process of taking what was common land used for local subsistence, expelling the inhabitants, and using it for the benefit of an absentee elite is called "enclosure." Enclosure is a major theme in natural-resource use (or abuse) throughout the world. Governments and corporations have enclosed former subsistence land to grow cattle, agricultural crops, or timber products for export. Expropriated lands have also been denuded and mined. Air and water (and who owns these?) have been polluted. Wildlife decimated. The former inhabitants have either migrated to cities or become laborers in mines or on plantations at low wages. Economists have labeled this entire process as "development."

## Early Park Proposals

Some park proposals have been made to protect local inhabitants from industrial enclosure, rather than to expel them for the benefit of a royal elite. The world's first national park proposal came from artist George Catlin, who was greatly disturbed over the destruction of both the bison and the Native Americans who depended on them. He advocated (in 1832) to protect the *entire* Great Plains area, from Mexico to Canada in a "magnificent park, where the world could see for ages to come, the native Indian in his classic attire, galloping his wild horse, with sinewy bow, and shield and lance, amid the fleeting herds of elk and buffaloes."

After his trips to Maine in the 1850s, Thoreau expressed a desire to protect both nature *and* indigenous culture from modernity. He proposed the creation of a park "in which bear and panther, and some even of the hunter race, may still exist, and not be 'civilized' off the face of the earth."

Yellowstone, our first national park, was established in 1872 to protect just nature, not the "hunter race." Indeed, by 1890, at Wounded Knee in South Dakota, the last of the "wild" Indian tribes was suppressed, eventually to be put in a far different type of "reserve."

## Parks as 'Development'

Not only is the corporate control of vast wildlands for simple exploitive purposes an act of enclosure, in some parts of the world, protecting nature in government-controlled parks has also been an act of enclosure. This has been



Parc de Gaspésie—Gaspé Peninsula, Quebec. Moonlit ski up to Mt. Logan through the land of the snow people. Drawing by Sue Szwed.

true in parts of Africa, Asia, Oceania, and Central and South America where indigenous people who had subsisted on the land for many centuries have been expelled in the name of "nature protection."

Nearly 20 years ago, ecologist Ray Dasman, writing about parks, distinguished between *ecosystem people* and *global people*. *Ecosystem people* depend on what is available from local ecosystems, which they view as their home or habitat. *Global people* rely on products from around the world—beef from Argentina, coffee from Brazil, cars from Japan, or oil from Saudi Arabia. Ecosystems are not their home, but their economic resource.

"It is characteristic of wealthier biosphere people," writes Dasman, "that they do not want to stay at home. They wander the globe always searching—searching for something they seem to have lost along the way..." This wanderlust gives rise to the tourist industry and gives financial justification for parks. In parks, the wanderers, "can see some of the wonders that they left behind, and can pretend for a while that they have not really destroyed the natural world—at least not all of it."

Too often, parks have been established for the benefit of *global* tourists at the expense of *ecosystem* locals. According to Anita Pleumaron, a writer from Thailand, "The designation of such biodiversity reserves as 'global commons'... has reinforced the belief that everyone has an equal right of access to them."

The problem gets worse when governments promote nature conservation to encourage tourism for the purpose of "economic development" (supposedly for citizen benefit). Governments and international monetary agencies give loans or subsidies to encourage the creation of infrastructures of airports, roads, hotels, sewage systems, power

lines, etc. to support the influx of tourists.

Much of this "development" that goes on outside of the park boundaries threatens the integrity of what lies within the boundaries and often does little to benefit the lives of locals. Many of the local jobs created by this "development" consist in changing sheets, cleaning toilets, or flipping burgers at low wages. Most of the economic benefit from these tourism development projects finds its way back into the *biosphere* economic network not into local communities. Ironically, local taxes to support the new infrastructure may increase.

Anita Pleumaron observes that, "tourism to the 'unspoiled, pristine wilderness' of a national park is internally contradictory. To generate substantial revenue—whether for conservation, foreign exchange, tour companies or local people—the number of tourists has to be large. That implies a greater impact on the local culture and the environment..." While many conservationists tout "ecotourism" as a more benign alternative, Pleumaron cites evidence that often tour operators simply put "eco" in front of what they have always been doing without changing at all.

Both Dasman and Pleumaron list numerous cases around the world where indigenous peoples have either been evicted or had their lives disrupted in the name of nature conservation. And they are both aware of the ironies of such evictions. Pleumaron, for example quotes a sanctuary ranger in Thailand: "We have our ancestors to blame for our predicament. If they had not protected these forests over so many centuries, we would not be threatened with eviction today."

## Alternatives

Dasman does not question that national parks, or something like them,

are very much needed. His concern is over what kind, and how they are to fit in to the patterns of life of local inhabitants. He offers four suggestions:

1. Rights of indigenous peoples must be recognized, and these people should be consulted over decisions which affect them.
2. Where isolated cultures have long survived in a sustainable manner—they should be left to continue their relationship with the land as long as they wish, undisturbed.
3. Where parks are established, their protection needs must be coordinated with the people who occupy surrounding lands. Those who are most affected should share in the benefits and share in authority and decision-making.
4. Land uses in surrounding areas must be compatible with protection of nature inside the park. This must be accomplished by "negotiation and understanding."

## The Northern Forest

Maine and the rest of the Northern Forest region differ to some degree from the areas of concern to Dasman and Pleumaron. The indigenous people have been expelled (and put in reservations) long ago by industrial enclosure. The forest is not "pristine," but high-graded, degraded, and mutated. Local inhabitants are, in general, marginalized *global* people (along with some rusticated elites), not *ecosystem* people. The pressing need is not so much to preserve the wilderness, but to restore it. The region already has some existing parks where traffic jams and overcrowding are common and where development has clustered around the edges. One only has to go to the White Mountains or Acadia to see...

This does not mean that it is therefore legitimate to have more parks *Continued on page 31*

# Aim High - The Wild Path Forward

## Notes for Wilderness Recovery and A Protected Areas Policy in Nova Scotia.

Most conservation biologists agree that compatible human uses of the landscape must be considered and encouraged in large-scale conservation planning. Otherwise, the strategy will have little public support. However, the Native ecosystem and the collective needs of non-human species must take precedence over the needs and desires of humans, for the simple reason that our species is both more adaptable and more destructive than any other.

—Reed Noss, "The Wildlands Project: Plotting A North American Wilderness Recovery Strategy", 1992.

There are basically two ways to visualize a protected areas policy. One of these ways is embodied by the 20-page document "A Proposed Systems Plan for Parks & Protected Areas in Nova Scotia," which your committee is holding public hearings on. (See map on this page.) Perhaps your way might be characterized as "Aim low and be prepared to compromise;" that is, accept the priorities of industrial capitalist society and seek some accommodation for wild areas within this society. This type of "wildness" will be acceptable even to industrial interests, i.e. forestry, mining, energy, and to hunting and trapping interests. Aiming low also means not challenging the dominant anthropocentric (human-centered) orientation of our society.

Other components of the aiming low position are: not challenging ever-increasing economic growth/consumerism/population growth, and the increasing toxification of the biosphere. This unchallenged "of course" world, takes for granted the dominance of eco-

nomics as determined by transnational corporations, and that the economy should determine the society. In this "of course" world, Nature is a "resource" and human interests are supreme. This is the world of shallow ecology, and it is the world view in this report. It is also the world of "sustainable development" (endorsed in this report). In the sustainable development world, society is supposed to put aside 12% of the land base (this report has already compromised down to 8%) and the rest can be "developed," that is, destroyed. The fact that various environmental groups like The World Wildlife Fund Canada, The Ecology Action Centre and The Nova Scotia Environmental Network, have all endorsed the Proposed Systems Plan, shows their placement within the shallow ecology camp.

The Green Web's vision of a wilderness recovery network or a protected areas policy, does not accept the above "aim low and be prepared to compromise" perspective. Any addi-

*In the past, and here today, the Green Web proposes making all provincial crown land in Nova Scotia wildlife and plant life reserves, where no timber extraction for pulp or saw logs or biocide use, or hunting, trapping, or fishing are permitted.*

tional protected areas in N.S. are an improvement over the existing situation. So the Green Web supports totally the setting aside in full protected area status (no human exploitation), of the 31 candidate areas under public discussion. However, if we are going to Aim High, which is essential to protect biodiversity and the evolutionary dance of life, then a number of fundamental and profound changes are necessary. My talk will discuss what some of the more important changes should be, none of which are part of the government's Proposed Systems Plan. Without such changes, the proposal for preserving essentially

fragmented islands of nature, what I call "the living museum approach," are doomed to failure. Conservation biology, as expressed through The Wildlands Project in the *Wild Earth Journal*, has shown us that large unbroken habitats, joined by suitable corridors, are mandatory for the preservation of minimum viable populations of species. This habitat must allow continued evolution and speciation.

### Necessary Changes

1) *A change in ethics from the existing anthropocentrism to an all-species ecocentric perspective:* The eight-point deep ecology platform provides a minimum summary of the needed ethical change. This is necessary in order to stop those social practices which threaten life on earth. Deep ecology says that humans are a part of Nature, one species among many. Nature does not exist to serve human purposes. Regardless of their usefulness to humans, all species have a right to

exist for their own sake. Most importantly, Nature functions in this ecocentric way, whether or not humans recognize this. Our failure to recognize how Nature functions, is leading us to the edge of ecological disaster.

This radical deep ecology ethical change, challenges industrial society and its land use practices to their very core. A radical deep ecology ethical perspective, says that we need total land reform in Canada and throughout the world, so that the land, water and air are seen as the common inheritance of all living beings. Private, communal, or crown (state) property "rights" are eco-

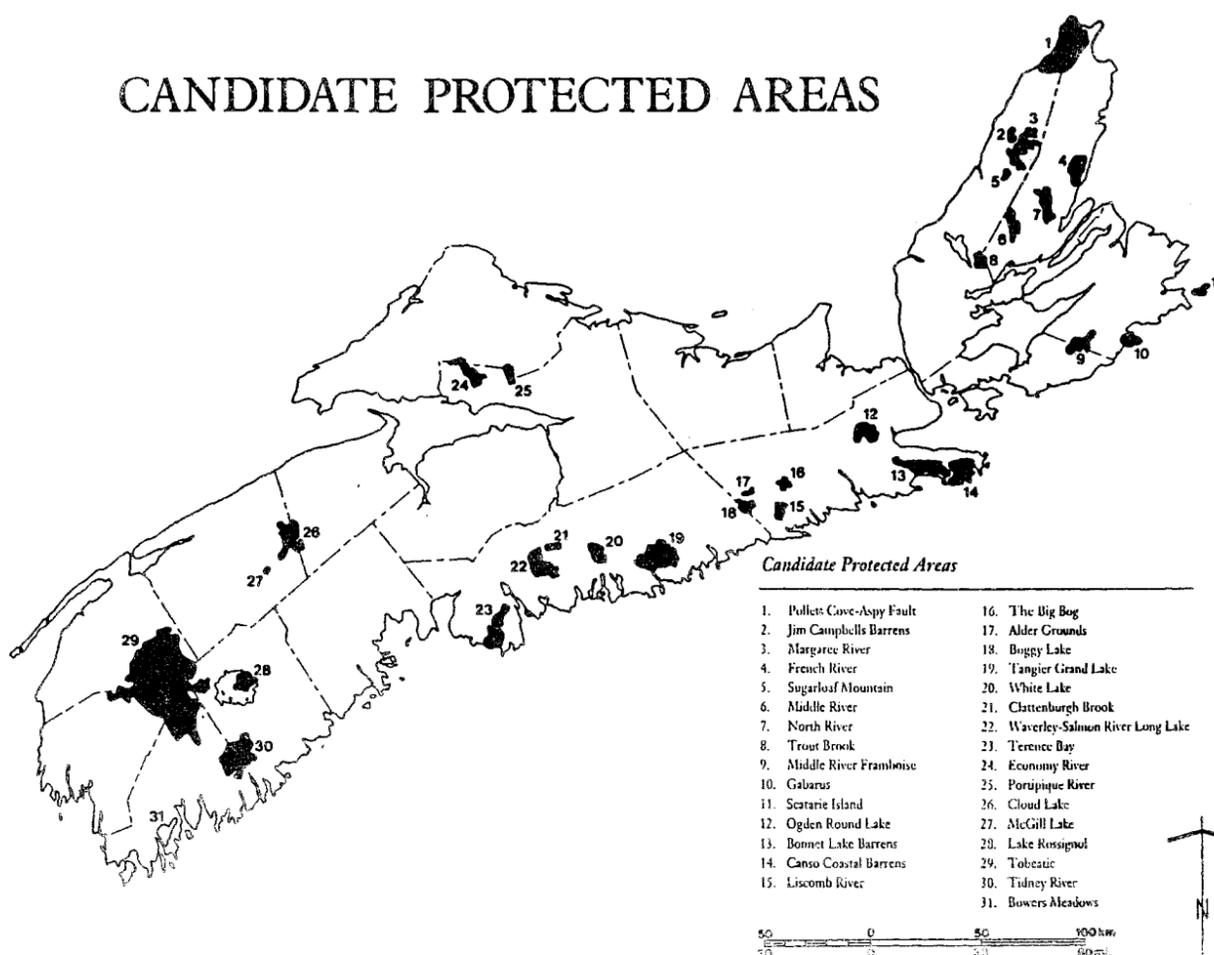
logically meaningless. Humans cannot "own" the Earth. The choice for wilderness proponents in Nova Scotia becomes, whether to accept the existing "property rights" perspective, e.g. "70% is privately owned and our hands are tied;" or to move beyond this, and put forth an alternative vision of needed ecological rights, and then socially mobilize for their implementation.

2) *Moving to a deindustrializing strategy.* This means ending continual economic growth, ever increasing consumerism, and "adjusting" to the global market place. Also needed, is a stabilization and reduction of human populations. We cannot keep our destructive lifestyles and still preserve wild nature. E. P. Odum in his book *Ecology and Our Endangered Life Support System*, says that we human beings have already appropriated for ourselves approximately 40 percent of the primary production of this Earth. This is widely quoted in green and environmental literature. What gives us the moral right to this excess, and how can there be any long term successful protected areas strategy within such an ever-growing matrix of corporate and human greed?

3) *Adopting The Wildlands Project Vision for Nova Scotia for protecting fully functioning ecosystems.* This Vision of large core reserves, with compatible use buffer zones, linked by corridors for a North American Wilderness Recovery Strategy is needed, to infuse protected areas thinking and proposals in Nova Scotia. The Tobetic, and the area north of the Cape Breton Highlands Park (the Pollett Cove-Aspy Fault), would be significant additions, and add-ons to the federal parks. But The Wildlands Project speaks of very large areas placed under preservation, not relatively small fragments of wild nature. In the past, and here today, the Green Web proposes making all provincial crown land in Nova Scotia wildlife and plant life reserves, where no timber extraction for pulp or saw logs or biocide use, or hunting, trapping, or fishing are permitted. Measures would include: crown leases to be terminated without compensation; cut-over areas allowed to naturally regenerate; extensive areas closed to human intrusion; no mechanical transportation allowed on crown land, etc. We need the creation of corridors linking these provincial wildlife reserves and the two existing national parks. This proposal, including federal and provincial crown lands, is a good start towards a Wildlands Project Vision for the province. It makes about 30% of forest land in Nova Scotia a protected areas reserve.

4) *Change the pulpwood orientation of forest policy in the province to a sustainable closed-canopy ecoforestry:* This would mean outlawing clearcutting and chemical and biological biocide use, and the use of destructive capital-intensive machinery. It is biologically pointless to have "protected areas" surrounded by sprayed clearcuts. Selection forestry would be mandatory so that the tree cover of any logged-over area is maintained. Natural reseeding, not tree planting, needs to be the main method of tree regeneration. The diversity of species of the existing Acadian forest must be maintained and not simplified, as in the existing situation, where only a

## CANDIDATE PROTECTED AREAS



## Nova Scotia Woodlot Owners Assn. Support Protected Areas Proposal

*Halifax, Nova Scotia*—The board of directors of the Nova Scotia Woodlot Owners & Operators Association, at a meeting held in Old Earns, Colchester County on Friday, February 24th, after extensive discussion, endorsed the Proposed Systems Plan for Parks & Protected Areas in Nova Scotia on behalf of the Association. This support, by the woodlot owners, for the setting aside of the 31 candidate areas in the Systems Plan, specifically means excluding any and all industrial exploitation in the proposed protected areas, e.g. timber extraction, mining, energy, hydro, etc.

Wade Prest, the President of the association, said, "It is essential in developing a protected areas strategy for Nova Scotia, that all of us are able to rise above our narrow economic self interest. The principle of setting aside wild areas protected from consumptive resource use has been endorsed worldwide by many governments, including Canada. It is at this level (provincially) where we must take concrete action to fulfill those commitments. I am pleased that the Association has endorsed the Proposed Systems Plan.

The Association, in consultation with its membership, is evaluating current trends in the forest industry in Nova Scotia. Specifically, the degree to which our forest resources are being used for the benefit of Nova Scotians is being examined. Small woodlot owners have 5 million acres of prime forest land that should be managed to sustain the ecological, economic, social, and cultural productivity for present and future generations. The vision of ecoforestry which the Association is currently developing, will be labor-intensive and will preserve, not destroy, the full ecological functioning of the forests. For the Association, setting aside significant protected areas of Crown lands in the province for their own sake, is an essential part of ecoforestry. Forestry, in its practices outside any system of protected areas, must support and not undermine the biological and evolutionary potential of such areas.

few softwood species, preferred by the pulp and paper industry, are replanted. Ecoforestry must, in its operations, support a protected areas' policy and be complementary to it. The full ecological functioning of the forest as a habitat for all species that live there, has to be maintained in any forestry operation. A commercial forestry that cannot accept the parameters proposed here, needs to be terminated. We cannot ecologically afford it any longer.

5) Ending the "game" orientation of wildlife policy in Nova Scotia. The present policy endorses a pulpwood forestry which destroys wildlife habitats everywhere, but then focuses on cultivating some wildlife species to be hunted, trapped or fished. Most personnel staffing the Department of Natural "Resources" have this anthropocentric mindset. Yet the 1991 World Wildlife Fund publication, *Wild Hunters: Predators in Peril*, notes that "Hunting has become a minority activity in Canada, practiced by less than 10 percent of the public, and that percentage appears to be getting smaller year by year." This small minority often opposes setting aside natural areas, without human exploitation, and wants new "hunts" e.g. the proposed but publicly defeated Spring Bear Hunt, of whatever shootable or trapable wildlife remains living in our province. Increasing numbers of people want to peacefully coexist with other species. They angrily see the existing "game" orientation as profoundly anachronistic to the new ecocentric ethic needed today.

6) Need for a complementary marine protected areas policy. This of course is not only needed for Nova Scotia, but for the oceans adjacent to Canada (the Atlantic, Pacific, Arctic),

and for the waters of the Great Lakes. We really need a Wildlands Project Strategy but in a marine setting. This means to set aside for complete protection, with no commercial exploitation, very large marine areas including biological hot spots like fish spawning and feeding areas, sea bird colonies, whale calving areas, etc.

It is widely recognized that, because of vested exploitive interests, a marine conservation areas system is going nowhere in Canada. This, even though Parks Canada has, as part of its mandate, the establishment of such areas in what it considers to be the 29 Maritime Regions of Canada.

A marine protected areas system, to be successful, needs to be accompanied by many of the changes suggested in this presentation. In addition, specific to all those earning a living from the utilization of the oceans, there need to be the following changes, among others:

- a) The reinstatement and internalization by fishers (and the Canadian public) of the view that the oceans are a "Commons," that is, the common property nature (meant in an all-species sense) of the fishery. This means to reject the ongoing "privatization" of the fishery, which is federal government policy.
- b) Banning all fishing technologies which are bottom destroying or non-selective in their application, e.g. dragnets and gill nets; banning any fishing gear which is destructive to other species of marine life than that being respectfully sought, e.g. dolphins, seals or marine birds.
- c) No corporation or individual fisher to acquire a vested financial interest because of being granted the privilege of fishing the marine commons. No corporate entity or individual fisher to



receive financial compensation from the state for leaving the fishery. We oppose federal government buy-outs to allegedly reduce fishing capacity.

d) The commercial fishery to be reoriented to a small boat near-shore fishery, governed by an ecocentric ethic, and accountable to the appropriate coastal guardian community.

7) Need for an extensive public discussion of Micmac "land claims" and "treaty rights" and their impact on a protected areas strategy for Nova Scotia. This issue might be noted last in my presentation, but it is a major one. There can be no protected areas strategy in the province without addressing Micmac concerns. The issue needs a public discussion in its own right, with extensive involvement of the Micmac. I believe we need social justice for First Nations, but within the context of ecocentric values. This should be a guideline in seeking solutions.

Aboriginal peoples in Canada often oppose the concept of "protected areas," or what have been called "allocations for nature" by the Land Claims Work Group of the Federation of Ontario Naturalists. In a paper submitted to *Wild Earth* called "The Wild Path Forward: Left Biocentrism, First Nations, Park Issues and Forestry, A Canadian View," I note the following factors influencing the aboriginal peoples regarding leave-alone natural areas: (a) Aboriginal Canadians historically utilized and changed their natural sur-

roundings.

- (b) Traditional native territories often include existing provincial and federal parks and protected areas—or some portion of them.
- (c) Natives were often physically displaced in creating some parks or protected areas.
- (d) The assertion of the primacy of treaty rights and land claims in the Canadian Constitution.
- (e) Much crown land covered in forests has been handed over to the forest industry, on long-term renewable leases.
- (f) At least in southern Canada, most land "unoccupied" by humans, is often in some kind of park status.

For all of the above reasons, and perhaps more, in many park or protected areas discussions, indigenous rights to hunt, fish and trap as part of land claims, are being pursued, and wilderness or wildlife sanctuaries closed to human "use" are being opposed. There needs to be an extensive public discussion through public meetings in Nova Scotia, to try and sort out some of these questions.

(A presentation at a public meeting held in Truro, on Feb. 21, 1995, to the Public Review Committee for a Proposed Systems Plan for Parks and Protected Areas in N.S., by the Green Web environmental research group, given by David Orton.)

# Clearcutting for Biodiversity & Sustainability in the Acadian Forest

by A.M. Lansky

## Introduction

If clearcutting is the primary silvicultural tool and there are no reserves, can landowners maintain biodiversity and have a sustained yield on a township (36 square miles) level? The question is germane because in some townships in Maine's unorganized territories, much of the forest has already been clearcut. On some landholdings in Maine, such as Scott's (now owned by the South African paper company, SAPPI), clearcutting has been the primary form of management. Industrial landowner groups have defended clearcutting as a means to achieve their own principles of sustainability. Some researchers have gone so far as to recommend larger clearcuts as a means to protect or enhance biodiversity.

The discussion in this article applies to forest zones where biodiversity is the primary concern of managers. In forest zones closer to human populations (such as woodlots), an economically-viable sustained yield of timber products would be the primary concern, though biodiversity would still be important. I use the "Principles of Sustainability" of the Northern Forest Land Council's *Finding Common Ground* (NFLC 1994) as guidelines. I also refer to scientific literature on the nature of the presettlement forest in this region.

I suggest that relying only on small, protected areas in reserves or riparian buffer strips to conserve the full range of biodiversity would be insufficient. Large portions of the "working forest" would have to be managed for biodiversity as well. Surprisingly, my conclusion is that relying primarily on clearcutting, managers can come close to achieving biodiversity and sustainability goals, but only if issues of intensity, size, context, and rotation length are addressed.

## The Principles

The Council listed nine principles of sustainability that dealt with: soil productivity, water conservation, age-class structure, continuous flow of forest products, improvement of quality, aesthetic impacts, conservation of habitats and species, protection of sensitive areas, and opportunities for recreation. For the purposes of this article, the two most relevant items are:

- \*"Conservation and enhancement of habitats that support a full range of native flora and fauna," and
- \*"Continuous flow of timber, pulpwood, and other forest products."

The first deals with biodiversity, the second with resource sustainability.

## Biodiversity

There are three major variables one must consider for maintaining biodiversity:

- \*habitat type,
- \*habitat size, and
- \*habitat age.

**Type:** If you set about to protect all habitat types or all native flora and fauna, you immediately run into a problem—how do you draw the line as to when you have fulfilled your goal? The problem is that with both habitats and species, one can go to finer and finer levels of classification. One can, for example, be satisfied with protecting habitats based only on broad classifications, such as softwoods or hardwoods. One can take the softwood classification and break it down by dominant species, such as spruce-fir, pine, cedar, or larch. One can take the spruce-fir and further refine it to lowland spruce flats, high-altitude fir, etc. With native flora and fauna, one can protect them by species, subspecies, or even local genetic types.

Small reserves might protect some broader ecosystem and species types, but it is doubtful that they will protect all types on finer scales on a township basis. Indeed, many townships might have no reserves if the reserve system is designed on a regional, rather than a township, basis.

**Size:** It is not sufficient to protect small islands of each ecosystem type (once one has chosen a level of

*Surprisingly, my conclusion is that relying primarily on clearcutting, managers can come close to achieving biodiversity and sustainability goals, but only if issues of intensity, size, context, and rotation length are addressed.*

classification). The protected areas (and this includes areas where biodiversity is a primary management concern) must be large enough to support viable populations of the widest ranging species. This means extending beyond a single ecosystem type. Wide-ranging species, and even some with smaller ranges (such as salamanders) might use more than one ecosystem type during their life cycles.

Protected areas also must be large enough to sustain the largest expected catastrophic (i.e., stand replacing) disturbances (in addition to clearcuts) over time and still maintain habitat capable of supporting viable populations. Finally, protected areas must allow for migration over a wider area than just the home-habitat range. This wider area not only ensures a larger genetic base, it also offers some hope for survival in the event of climate change.

Research by Meiklejohn (1994) suggests that

riparian buffers (especially those surrounding feeder streams) surrounded by clearcuts may be insufficient to support the full range of bird species requiring larger areas of mature interior habitat. Too much of the habitat is edge. Where there are no reserves, these buffers may represent the majority of the forest that is not subject to clearcuts in a township.

**Age:** Finally, it is not sufficient to merely have large areas of a certain ecosystem type if it is not allowed to achieve the structural diversity that only comes with age. This includes large old trees, snags, canopy gaps, gap saplings, multiple foliage layers, large fallen logs, and tip-up mounds (Frelich and Lorimer 1994). Managing a forest, however large, on short rotations truncates development towards those structures.

## Sustainability

To sustain a continuous flow of forest products implies that one does not cut huge quantities one year and very little the next. This would hardly meet the purpose of this criterion, which is to lead to a stable local economy based on an even flow of wood. If the local economy is to be stable, there cannot be dramatic shifts in species utilization from one year to the next. Local economic stability can be increased, however, if there are long-term shifts towards higher-valued species with larger average diameters, suitable for higher-valued wood products.

## Minimal Recovery Time

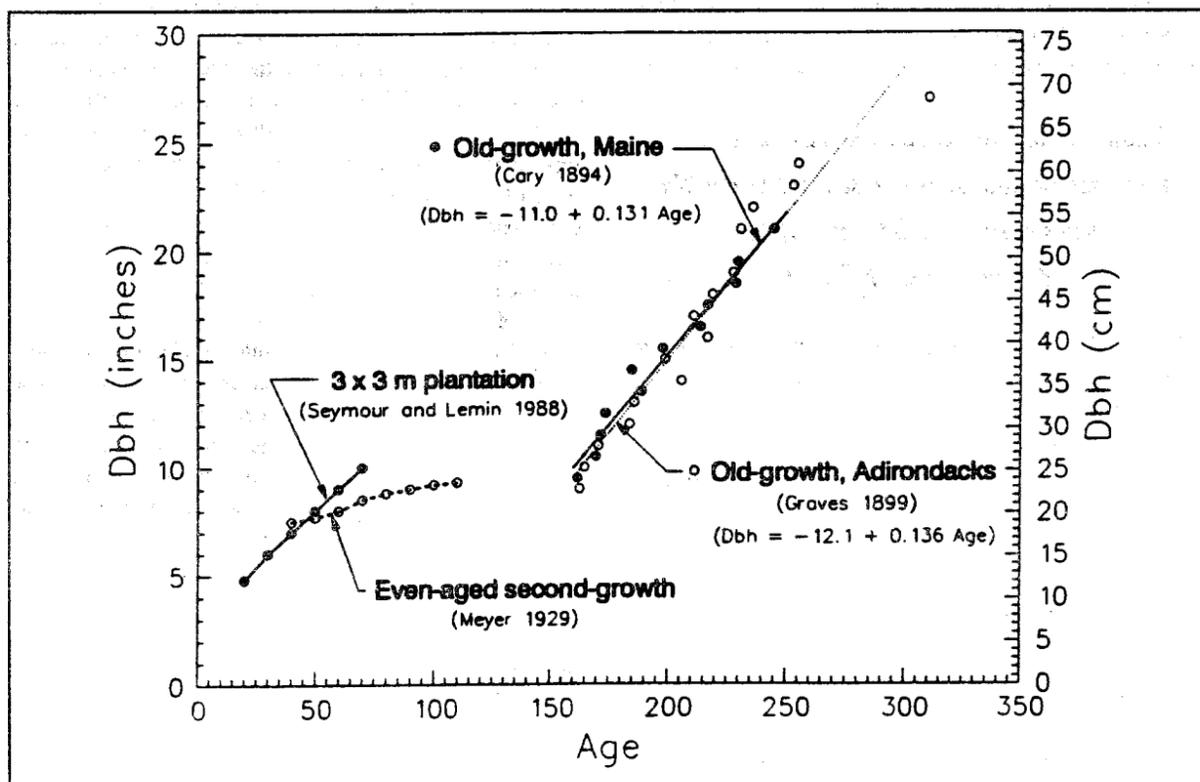
The 40 to 60 year rotations, that some landowners are claiming, are clearly insufficient to develop the vertical or structural diversity that some species require. It is also not sufficient to grow the highest quality timber products. Even boosting the rotation to 85 years, as some researchers have suggested, is not adequate to meet the goal of protecting the full range of forest habitats. A USDA Forest Service study in New Hampshire, for example, found that rotations less than 110 years in northern hardwoods only produce marginal amounts of large-diameter cavity-dwelling/foraging habitat. Rotations of fewer than 60 years would produce none (Tubbs and Yamasaki 1986).

Large, dead wood, both standing and down, is exceedingly important as habitat for numerous forest-dwelling species. Between 20 and 66% of bird species in many forest types may be cavity nesters. "In fact," writes conservation biologist, Malcolm Hunter, Jr. (1990), "if we consider cavities in both trees and logs, it is likely that most species of forest-dwelling mammals, reptiles, and amphibians seek shelter in cavities at least occasionally."

Dead wood is also important for many invertebrates. Hunter (1990) notes that, "just the small subset [of beetles] that makes its living on dead and dying wood outnumbers all the world's species of mammals, birds, reptiles, and amphibians at least two to one." Large, dead-downed wood is also of prime importance: for slow release of nutrients and organic matter, for retention of moisture, as a prime site of regeneration, and as an important habitat for mycorrhizae fungi that are essential for tree health.

A study of northern hardwoods (Lorimer and Frelich 1994) determined that a 70-year-old hardwood stand on an average site in Michigan would require another 100 years to reach a mean overstory diameter of 20 inches, typical of the majority of old-growth stands. Transition to an uneven-aged structure would probably take another 50-100 years.

Several studies of virgin red spruce stands found that it took around 200 years just to reach an average diameter of 14 inches (Seymour and Lermin 1993). Austin Cary (1896) described a heavy cut near Berlin New Hampshire where "Plenty of ground that started with fifty hadn't more than two or three cords of wood of any kind standing on it...A hundred years will not suffice to grow another crop of spruce logs...and at two hundred it could not fail...to be much smaller than the original stand." Thus the *minimum* length of time to re-establish an old-growth structure from a clearcut with either red spruce or northern hardwoods would be from



Comparison of diameter-age relationships of virgin old-growth red spruce with managed and unmanaged even-aged stands. Adapted from Seymour 1993.

### Context

Researchers who have attempted to reconstruct the presettlement northern hardwood and red spruce-balsam fir forests have concluded that the majority of the forest had an uneven-aged, old-growth structure. Lorimer and Frelich (1994), for example, estimate that 70% of the hardwood forests of Michigan were dominated by older trees (130-300 years old). Lorimer (1977), and Seymour (1993) both concluded that most of Maine's Acadian red spruce/northern hardwood region had an uneven-age structure. Uneven-aged forests with some older trees was the context in which disturbances occurred. The surrounding forest, therefore, was a refugia for all the species that would eventually recolonize the disturbance gaps.

### Rotation Length

While stand-replacing disturbances (such as wind or fire) might cover hundreds or even thousands of acres, the rotation of these catastrophic disturbances at given locations in the presettlement forest ranged (according to different researchers) anywhere from several hundred to more than a thousand years in the red spruce-balsam fir type (Cogbill 1993, Lorimer 1977) and more than a thousand years for the northern hardwood type (Lorimer and Frelich 1994). These forests were not dominated by thousand-year-old trees, however. More-frequent, smaller-scale disturbances led to individual-tree rotations of two to four hundred years (Lorimer and Frelich 1994).

Of course, forest managers using clearcuts will want to have the shortest rotation that meets both the biological and sustainability guidelines. This rotation length is a function of the minimum time it takes to reach the desired forest structure and the percentage of the forest that will have this structure. It will not do, for example, to cut stands as soon as they reach the minimum age of old-growth structure, because this would mean forests with such structures would be tiny, isolated fragments—a fraction of 1% of the landscape.

The formula for determining rotation length is  $R=L/(1-p)$  where:  $R$ =rotation length;  $L$ =length of time required to return to an old-growth structure; and  $p$ =target for proportion of landscape in forest with old growth structure (Perry 1994).

Using the lowest figures for minimum recovery time for an uneven-aged, old-growth structure (220 years) and coverage by this structure (a majority, or around 60% of the forest), managers would need a rotation length of at least 550 years for their clearcuts if the presettlement forest is to be used as a rough guide to restoration. With a 270 year recovery period and 70% of the forest with old growth the rotation would be 900 years.

### Clearcut Size

Some researchers have recommended that clearcuts need to be bigger so as to avoid forest fragmentation. Large clearcuts, they claim, imitate natural disturbances, such as fire. The big clearcuts, they argue, will grow up to be big mature forests. These researchers have also argued that maximum diversity is achieved by having a mosaic of age classes, and thus a wide variety of habitat types.

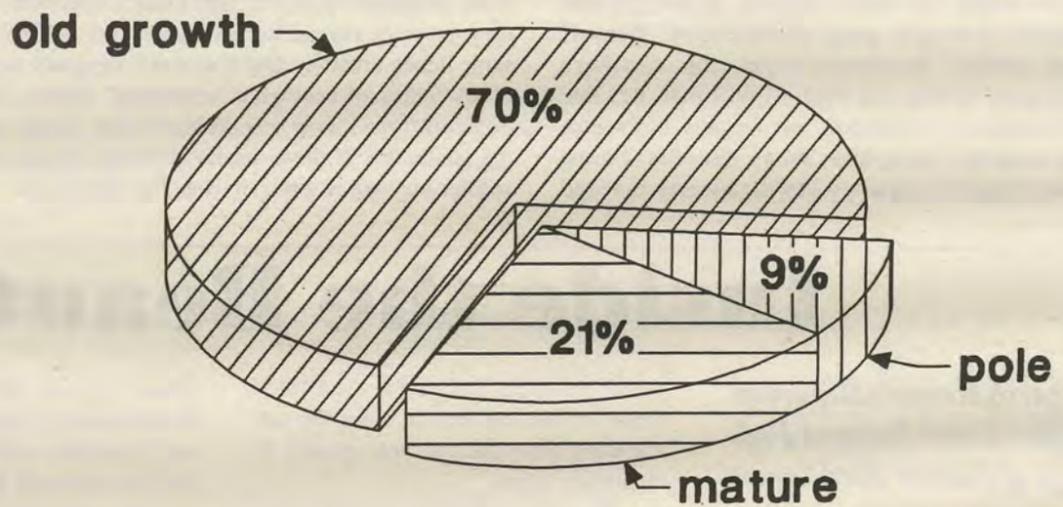
Although large openings may be "natural," short rotations (except in extreme habitat and soil types) are not. Putting simplified short-rotation fragments together into a mosaic does not magically compensate for the deficiencies of the constituent parts. A mosaic of relatively young stands does not create habitat for species associated with old growth. A mosaic of stands favorable to common species does not create a larger haven for rare species. A mosaic of fragmented stands does not create habitat for species requiring a more continuous mature forest. A mosaic of unstable stands does not create a more stable forest ecosystem.

If the rotations are long enough (as in the presettlement forest), the dominating structure will be uneven-aged, rather than a mosaic of even-aged stands. The mosaic boundaries will tend to dissolve for the older stands (Lorimer and Frelich 1994).

If townships are the basic unit for sustainability and a long rotation is used, big clearcuts will not be an option. A Maine township is 36 square miles, or 23,040 acres. Assuming that a given township has rivers, lakes, streams, and open wetlands, and assum-

## Proportions of Stand-Age Classes on 56,000 Acres of Remnant "Pristine" Landscapes in Upper Michigan

*Structural criteria define Old-Growth. Trees 130-300 years old typically dominate the canopy.*



Source: Lorimer, and Frelich 1994

ing that buffers around these water bodies cannot be clearcut, and assuming that there may be steep slopes, rocky outcrops, deer yards, habitats with rare species or other areas where clearcutting is not possible or desirable, the clearcut land base might only be 80% of a township, or about 18,500 acres.

If the minimum rotation is 550 years, then the maximum allowable cut per year per township would be less than 34 acres. If there is to be an even flow of many tree species, then these 34 acres might have to be distributed to several different stand types. Thus the biggest clearcut might only be 4 to 10 acres. These small clearcuts would not fragment the landscape. Because of the long rotation, the landscape would still be dominated by mature interior forest. Indeed, the small clearcuts would be an advantage as they would more easily be recolonized.

### Problems

**Intensity:** If hardwood or softwood forests are severely disturbed, then the rotation to old-growth structures can take even longer. The forest will have to go through the full range of succession, starting with pioneer species. Austin Cary (1896) described one fire-origin stand that, after 110 years, was still dominated by pine, birch, and aspen with spruce in the understory.

Modern whole-tree clearcuts are, in a number of ways, more severe than the fires and windstorms of the presettlement forest. These clearcuts: remove much of the above-ground biomass; leave no residual, dead standing, or dead downed trees; and rut and compact the soil. Such changes mean that the forest ecosystem

*Modern whole-tree clearcuts are, in a number of ways, more severe than the fires and windstorms of the presettlement forest.*

will take longer to recover because there is more to recover from. In contrast, fire and wind leave residual trees (both dead and living). Indeed, new research by Harvard scientists with the Long-Term Ecosystem Research program has indicated that even with violent windstorms in northern hardwoods, the majority of the trees that fall can continue to live and resprout. The great damage done by the Hurricane of 1938 was from the salvage, rather than the wind (Hightower 1995).

Managers also try to avoid the full span of natural succession and have followed clearcuts with herbicides, spruce plantations, and/or thinnings. They claim that these "intensive" practices "speed up" the rotation. While early-stand spacing may lead to larger diameters faster, it does not make the trees taller faster. Reaching full height potential is an important feature of older stands. Wider spacing also delays (rather than speeds

up) reaching the culmination of the mean annual increment for spruce-fir (see Lansky 1992, p. 150)

Widely-spaced stands tend to develop a different structure from unthinned stands. In unthinned stands, trees are less tapered and lower limbs self-prune. In widely-spaced stands, the trees are highly tapered and branches go nearly to the ground (Shepard et al, 1991). This means it will take longer to develop a shaded, open forest floor.

Pioneer species play important roles for soil building, forest health, and wildlife habitat. They offer a partial-shade overstory to protect developing shade-tolerant stands. Spraying herbicides can interfere with such processes. It can also lead to increased nutrient leaching. Once again, these intensive practices may lead to a need for more time for ecological recovery rather than less.

If managers use less-intense cutting—cutting that leaves behind more of the biological legacy of old trees, dead-standing trees, dead-down trees, and multiple canopies—rotations could be shorter than those previously discussed. This is one of the premises of the "New Forestry" advocated by scientists in the Pacific Northwest. Lorimer and Frelich (1994) estimate that heavy partial disturbances (up to 50% of the stand) may have occurred in northern hardwoods on an average of once every 300 years.

### Stand Changes

Not only were past disturbances (including "clearcuts") less severe than some current practices, the forest had a different structure and a different resistance to and resiliency from disturbances. Seymour (1993) argues that until the 1960s, timber harvesting represented a "staged liquidation of the original members of the old growth forest that had survived the early partial sawlog cuts and the budworm attack and had not blown down..." These cuts often released advanced regeneration from the old forest. The remnants of the primary forest, however, are mostly gone now. With some of the large, intense clearcuts of more recent years, stands have been established from seed after the cut, rather than advanced regeneration.

These changes over the last 150 years have led to major shifts in species ratios—from longer-lived shade-tolerant to shorter-lived pioneer or intermediate species. While in the presettlement forest the top three hardwoods were beech, yellow birch, and sugar maple (Lorimer 1977), the top two hardwoods now are red maple and poplar (MFS 1993). Balsam fir has been elevated from a sub-canopy to a dominant canopy tree over a wide area of the Acadian forest.

### Refugia

In regions dominated by repeated heavy disturbance over the last century—including fire, spruce budworm, and recent large-scale clearcutting—recov-

ery to presettlement-like stand structures may be long indeed, as there may be inadequate local sources of the full range of species for recolonization. For example, silviculturalists recommend not making openings greater than several tree heights in diameter if heavier-seeded trees are to be re-established. Yet we have seen openings in the thousands of acres. The gap context is now a disturbed landscape, rather than old growth.

These relatively frequent, heavy disturbances may also have wiped out locally-adapted, genetically-distinct plant or animal populations called "demes" (Pielou 1990). Research from the southern Appalachians (Duffy and Maier 1992) indicates that some herbaceous understory plants may not return after a clearcut, even after many decades. Forest geneticist Stephen Manley (1992) asserts that red

spruce is "off site" in a clearcut. What recolonizes a clearcut is more apt to be a red-black hybrid, especially if there is inadequate advanced regeneration. This could mean that in future generations, true red spruce would not be locally available as a seed source. Manley asserts this has already happened over large areas of the Maritimes.

Lichen researcher, Steve Selva, has discovered that lichen diversity is correlated with stand age. There is no guarantee, however, that today's clearcuts, when they get to be several hundred years old, will have the same lichen diversity. Selva sees this diversity as more of an "index of ecological continuity" (Selva, 1994). Some of these lichen species move very slowly across the landscape. If there are no adjacent sources, these species may not recolonize when the stand ages.

Key species, such as caribou, wolves, cougars, or even passenger pigeons have been extirpated or driven extinct. There are no local sources for reintroduction. Their absence may affect stand development. Browsers with fewer predators can lower plant diversity (Spurr 1973). Omnivores with fewer controls can be more devastating as nest predators (Wilcove et al 1986).

#### Stability

Just because the forest is being "managed" does not mean that natural disturbances will somehow cease. Centuries of management of increased intensity has led to forests with increased instability (i.e., a lowered resistance to and resiliency from disturbances). The most obvious symptom has been the increased size, intensity, and frequency of spruce budworm out-

## Inside the Beauty Strip

### Research Reveals Riparian Buffers Don't Support Full Range of Native Bird Species

by Mitch Lansky

We now have evidence that forest fragmentation has been occurring in Maine for years and on a very large scale. Since the late 1970s, industrial landowners have clearcut thousands of square miles of the Northern Forest in Maine. Due to LURC (Land Use Regulation Commission) regulations, landowners have been prohibited from clearcutting riparian (along water bodies) buffers and deeryards. In some townships these "protected" areas, usually between 75 and 250 feet wide, contain the only mature forest. Despite the fact that landowners are allowed to remove 40% of the volume of the riparian buffers over a ten year period, these buffers are often the closest approximation to a "natural" forest in some townships. The question thus arises whether these buffers are large enough to support the full range of forest species.

Even Maine's clearcut and regeneration rules, established by the Maine Forest Service in 1990, do not guarantee that a township will have mature forests anywhere but in the riparian areas. For example, with clearcuts of less than 35 acres, separation zones between clearcuts have to be at least 250 feet. But landowners can cut these separation zones down to 30 square feet of basal area per acre. This can be more than an 80% reduction from a well-stocked soft-

wood forest. In ten years, even these flimsy buffers can be cut, since the surrounding clearcuts can now qualify as separation zones.

The riparian buffers are thus very important, not only for protection of water quality, but also as wildlife habitat and migration corridors. Meiklejohn (1994), studied riparian areas in the industrial forests of eastern Maine to determine if "beauty strips" could support the full range of bird species. He compared bird abundance and diversity in buffer strips of varying width contiguous with clearcuts to controls—riparian areas that merged into more mature forests. He concluded that the answer is "no".

#### Interior vs. Edge

Conservation biology theory predicts that these thin forests, though they may contain hundreds or thousands of acres, present more edge than interior habitat. Edge-adapted bird species tend to be habitat generalists, often associated with disturbed forests. Two of the edge species studied by Meiklejohn, White-throated Sparrows and Common Yellowthroats, were also common in the clearcuts adjacent to the buffers. Other edge species, such as Blue Jays, Crows, and Grackles, are frequent nest predators of songbirds. Meiklejohn did not find Cowbirds, another edge species associated with nest predation, in his study area.

Some known interior species that were well represented in control plots were largely absent from the narrow (75 foot) buffers along tributary streams.

These species include Bay-breasted, Blackburnian, Black-throated Green, and Cape May warblers, Ovenbirds, and Golden-crowned Kinglets. This could spell future problems to forest stability as the Blackburnian, Bay-breasted, and Cape May warblers, along with the Golden-crowned Kinglets, are important predators of the spruce budworm. Research by the U.S. Forest Service has indicated that these birds are capable of preventing low budworm populations from exploding to epidemic proportions.

Forest interior birds were present in the wider (250 foot) buffers around rivers. Meiklejohn questions if these are viable breeding populations, however, due to the high levels of nest predators (which include red squirrels, black bears, and raccoons, as well as Crows, Grackles, and Blue Jays). The combination of lower populations plus decreased reproduction success could spell future troubles for these birds.

#### Local vs. Regional Diversity

In Meiklejohn's study, bird abundance and species diversity were similar in the riparian "beauty strips" and the non-clearcut controls. However, a similar study completed in the boreal forests of Quebec by Darveau et al. (1995) detected higher bird densities in the riparian strips than in the unlogged forests. One reason for the higher populations is what a farmer friend of mine calls the "mouse-density phenomenon." When this farmer mows his hay, he starts at the edge of the field and works his way in. When there is only a small

patch of hay left standing, the field mouse density in this island is greater than the mouse density in the previously unmown field. This is because there is no other habitat left, and mice lucky enough not to get stuck in a hay bale have jumped ahead of the tractor into whatever hay is left standing. Similarly, when returning migrant birds find that much of their former breeding grounds have been clearcut, they go to the next closest habitat—which is the remaining buffer. The higher density, thus, is not necessarily a healthy sign. It is a higher density in a reduced area, and these populations may not be sustainable.

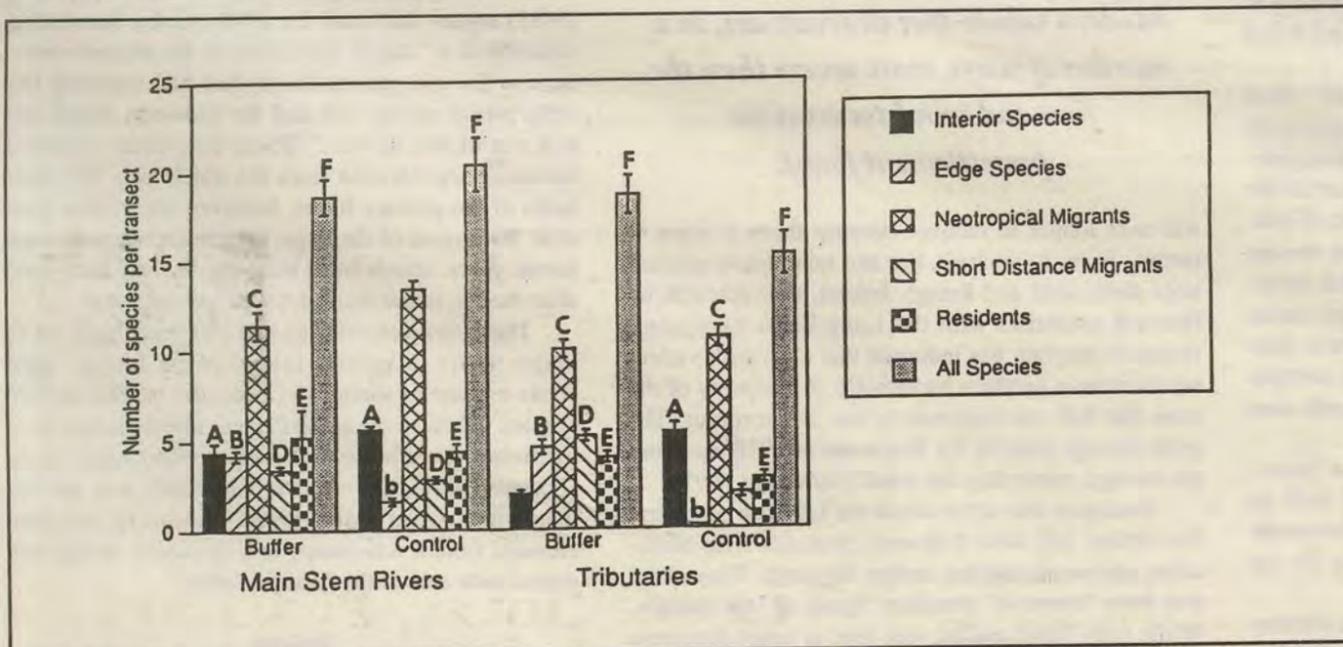
That the diversity of bird species observed by Meiklejohn was similar in the strips and the controls should not be construed as a sign of health. In this case and many others, species composition may be more important than species diversity. Common and widespread habitat generalists such as Bluejays, White-throated Sparrows, and Common Yellowthroats were more prevalent in the buffer strips while forest interior birds, such as Cape May, Blackburnian, Black-throated Green, and Bay-breasted Warblers were nearly absent from the strips. Thus the overall effect may be similar local diversity but lower regional diversity.

#### Conclusion

Because riparian buffers can have some of the only mature forest habitat in a disturbed forest landscape, Meiklejohn recommends that action be taken to increase forest-interior habitat and minimize the edge effect. The buffers need to be wider than current standards—especially for tributary streams. He suggests that "timber harvesting or other canopy-opening activity within the strips should be minimized or avoided altogether. Where possible, buffer strips should be connected to adjacent forested habitat to allow for genetic exchange and wildlife movement." Whether these modest suggestions, based on sound scientific principles and research, can be translated into policy in Maine's political climate is beyond the scope of Meiklejohn's research.

#### Literature Cited

- Darveau, M., P. Beaudesne, L. Belanger, J. Huot, and P. Larue. 1995. Riparian forest strips as habitat for breeding birds in boreal forest. *Journal of Wildlife Management* 59: 67-78.
- Meiklejohn, B. 1994. The value of buffer strips as riparian habitat in northern forests. M.S. Thesis, University of Vermont, Burlington. 41 pp.



Bird Species richness in buffer strips and controls, by migrant class and habitat preference in eastern Maine, June 1994. Upper- and lower-case letters indicate significantly different values ( $p < 0.05$ ). Values are transect means; error bars depict  $\pm 1$  standard error.

breaks (Blais 1983).

There have been other problems as well. Introduced pests, such as Gypsy moths, Dutch elm disease, and beech-scale necrotia have also had major impacts in some regions. Air pollution, such as ozone and acid precipitation, may be another "insult" that lowers the forest's resistance and resiliency. Global warming could be especially threatening to boreal species in the Acadian forest, because they are at the southern end of their range.

Although fires are now "controlled," before fire fighting became practical, fire cycles were also increasing in size, frequency, and intensity following management (Lansky 1992, pg. 97). More recent management, although it has removed much of the slash and tops that created such fire hazards in the past, has none-the-less created large areas of fire-susceptible stands in some townships. Vast areas of young, even-aged softwoods with branches to the ground create conditions that can lead to catastrophic losses to fire.

Despite foresters' best efforts, they cannot yet control the wind. With the current context of abnormally severe disturbances from logging and continued disturbance from wind, and perhaps increased disturbance from insect and diseases (for many decades to come due to current forest structure and introduced species), the desired goal of having the majority of the forest in an older-growth condition might take far longer than the 550 years theoretically projected as a minimal rotation.

#### Conclusions

Large (hundreds of acres), whole-tree clearcuts on relatively short (60-85 years) rotations would clearly not lead to a forestry system that both protects biodiversity and has a sustainable yield. Such practices would represent a cumulative impact to a forest that is already structurally simplified at the stand level and fragmented at the landscape level. To use clearcutting to bring back a forest structure similar to that which dominated the presettlement forest would require smaller, less intense cuts, on much longer rotations than are currently the norm. Indeed, the rotations would have to be longer than the time which has passed since Columbus "discovered" the New World. Present planning capabilities are not yet up to such a task.

Even if there were no cutting at all, many of the problems discussed in this article would apply to reserves. With rotations in the hundreds of years, much of the managed forest would be indistinguishable from reserves which start from second-growth forests—especially if roads are wiped out for the centuries between cuts. Recovery will not be easy in either case.

This article does, however, suggest the importance of protecting old-growth and older stands now. Protecting such stands would preserve habitat for flora and fauna requiring large tracts of mature interior forest and would serve as refugia for nearby recovering forests. Where there are no nearby refugia for the full range of native local species, managers could speed recovery through reintroducing these species.

Where there is cutting, it would make more sense to use lower-impact methods that: retain more of the forest; allow stands to increase in volume and height; and also allow stands to contin-

ue their successional development towards older-growth structures. The intensity of such cutting could increase as one gets further from the reserve zone and closer to areas of habitation.

While a system of larger reserves buffered by low-impact management would represent a more practical compromise than clearcuts on very-long rotations, even low-impact management would lead to stands that are different from true old-growth. Managed stands would have roads and would have less large dead wood than would be found in unmanaged old growth (Leak et al 1994). Small reserves scattered through the managed forest could help serve as both refugia for species requiring larger concentrations of dead material and as controls to what can best be described as a very long-term silvicultural experiment.

Unlike the Pacific Northwest, where the primary issue is the protection of remaining old growth, the primary issue in Maine should be ecological recovery. It will not do to maintain the intensity of soil disturbance, stand simplification, and landscape fragmentation that have prevailed over the last few decades. The first item on our agenda should be to phase out the most damaging practices that are closing off options for many generations to come.

#### References

- Blais, J.R. 1983. Trends in the frequency, extent, and severity of spruce budworm outbreaks on eastern Canada. *Canadian Journal of Forest Resources* 13:539-547.
- Cary, A. 1896. Report of Austin Cary. P.15-203 in: *Third Annual Report of the Forest Commissioner of the State of Maine*. Augusta, ME.
- Cogbill, C.V. 1993. The ancestral forest. *The Northern Forest Forum* 1(4):30-31.
- Duffy, D.C. and A.J. Meier. 1992. Do Appalachian herbaceous understories ever recover from clearcutting? *Conserv. Biol.* 6:196-201.
- Hightower, M. 1995. Researchers trace complex roots of forest ecology. *Harvard University Gazette*. XC(27): 1-10
- Hunter, M., Jr. 1990. *Wildlife, forests, and forestry: Principles of managing forests for biological diversity*. Prentice-Hall, Englewood Cliffs, NJ. 370p.
- Lansky, A.M. 1992. *Beyond the Beauty Strip: Saving What's Left of Our Forest*. Tilbury House Publishers, Gardiner, ME. 452p.
- Leak, W.B., M. Yamasaki, J.W. Hornbeck, C.T. Smith, and S. Fay. 1994. The Deadwood report: Implications of changes in deadwood recruitment patterns from the harvest of forest products. USDA For. Serv. Res. Rep.
- Lorimer, C.G. 1977. The presettlement forest and natural disturbance cycle of northeastern Maine. *Ecology* 58:139-148.
- Lorimer, C.G. and L.E. Frelich. 1994. Natural disturbance regimes in old-growth northern hardwoods: implications for restoration efforts. *Journal of Forestry*, 92 (1):33-38.
- Maine Forest Service 1993. Assessment of Maine's Wood supply. DOC, Augusta, ME.
- Manley, S. 1992. Personal communication.
- Meiklejohn, B. 1994. The value of buffer strips as riparian habitat in northern forests. Master's paper for University of Vermont.
- NFLC 1994. *Finding Common Ground: Conserving the Northern Forest*. Northern Forest Lands Council, Concord, NH.
- Perry, D.A. 1994. Ecosystem silviculture: ecological principles, implications for communities. *Canadian Silviculture Magazine* 6:6-12.
- Pielou, E.C. 1990. Depletion of genetic richness is not 'harmless' consequence of clearcutting. *Forest Planning Canada*. July/Aug.:29
- Selva, Steve. 1994. Personal communication based on paper in print.
- Seymour, R.S. 1993. The red spruce-balsam fir forest of Maine: evolution of silvicultural practice in response to stand development patterns and disturbances. *The Northern Forest Forum*. Mid summer: 15-18
- Shepard, R.K., J.E. Shottafer and W.C. Bragg. 1991. Stand age and density effects on volume and specific gravity of black spruce. *Maine Agr. Exp. Sta. Tech. Bull.* 139. MAES, U of ME. Orono
- Spurr, S. 1973. *Forest Ecology*. Ronald Press Co., NY. P. 371.
- Tubbs, C. and M. Yamasaki. 1986. Wildlife Management in New England northern hardwood. In: John Bissonette, ed., *Is Good Forestry Good Wildlife Management?*. Maine Ag. Exp. Sta., U of ME, Orono. P-120.
- Wilcove, D.S., C.H. McLellen, and A. Dobson. Habitat fragmentation in the temperate zone. In: Michael Soulé & David Wilcove eds. *Conservation Biology*. Sinauer, Sunderland. P-251-252.

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# What We Can Learn From the Baxter Old Growth Forest

by William Butler

Not by human design, but through happy accident, we have a substantial remnant of the old-growth spruce forest [Ed. Note: See "Old Growth at Baxter State Park's Scientific Forest Management Area," by Mitch Lansky, vol. 3, #1, page 15] that, until about a hundred years ago, was the predominate forest type in Maine. If you are curious about how modern industrial forest production compares with the original natural stand, and are interested in keeping score, this relict forest is possibly your last chance to obtain actual numbers. In the great flush of frontier forestry that swept over Maine, no one bothered to measure fundamental data on the spruce forest—numbers, heights, spacing, accretion rates, ages, and mortality rates. Bob Seymour (College of Forest Resources, University of Maine) has mentioned this lack of basic data.

In 1975 I asked Jon Falk, just out of Yale forestry, where were the tables for stocking and yield on red spruce stands of a single age (not to mention the more complex all-aged natural stand); his answer that there weren't any allowed me to respond that anyone's opinion, even mine, was as good as another's. He conceded that, unfortunately, this was true. One of the consequences of this ignorance is that the practice of forestry has no fundament—it's like the game called Bumblepuppy, which is whist without rules.

What is Old Growth? The term has many aspects. First, it means trees that have been growing for at least as long as the species can live, and which have been replaced by subsequent generations of the same species. By this definition, there is no old growth aspen, or other early-successional species. In the Baxter stand, some of the few trees with measured age are over three hundred years old, which leaves a wide interval for other ages; it seems from cursory examination that many ages are present, but no single age class is dominant. This condition is part of my tentative definition. To be certain that the trees

have reached the maximum attainable age, one must find a number of *dead* trees of the presumed maximum age; such may be what we see in Baxter's woods.

Percival Baxter may have left us more than he believed he had accomplished. As I learned in stopping, with Charles FitzGerald, commercial cutting in the part of the Baxter Park which includes this old forest, Baxter knew the landowners were bent on stripping the parcels they sold him. In the Park's northwest corner, the so-called scientific management area, the Eastern Corporation, with two Maine paper mills, retained cutting rights on this land after the sale. In short, Baxter knew he was buying mostly cutover land.

How did an undisturbed area that Jensen Bissell, the Baxter Park silviculturist estimates at 300 or more acres of beautiful spruce and other species escape? A convenient explanation may be that there is no road nearer to it than a good hour's walk. This explanation is doubted by Charles Yeo of Eastbrook, who says that he worked in places much more difficult of access, such as Jo-Mary Mountain, where the spruce were just as tall as those we see at Baxter; it was so steep they had to pull empty trucks up the mountain, and then ease them down loaded, snubbed by a bulldozer. This was the stand where three Canadians cut 200 cords in a 40-hour week, as published by Great Northern Paper Co. I can believe the figure reported when Yeo tells me there were 20 to 25 four-foot cuts in each tree. Yeo suggests the Baxter patch was retained as a source of boom poles, full-length trees used in the river and in crossing ponds to contain the pulpwood sticks.

Whatever the reason for leaving it, if any, we are blessed with a piece of forest that may have escaped Charles Cogbill's warning that "...the remnant pockets are unreliable indicators of the range of original conditions." (*Forum*, Mud Season 1993, vol. 1#4). I would submit that the Baxter wood is a most impressive stand by contrast with the Reed Pond forest. As a former logger,

Big Reed spruce seemed to me to be scattered, low-density. Possibly my view was influenced by finding the Pingree heirs had scalped the spruce on the top of Big Reed mountain, before selling it to the Nature Conservancy. The Baxter stand is a logger's idea of the promised land, or even what we had in Maine in my lifetime.

My personal impression on first seeing the Baxter forest was shock at the number and sizes of the standing or fallen dead trees. It was so great as to make one doubt the efficacy of the natural process, the ecosystem idea of a "steady state" which, in turn, is derived from physical chemistry considerations. I have heard foresters say of a stand with big dead trees that "the stand is falling apart," usually followed by a prescription to cut *all* the trees, alive and dead. Even though I had re-invented a silvicultural system for Maine based on the steady-state process where only the trees just dying were cut, leaving the maximum growing stock, I was unprepared to recognize how great a volume of dead wood accumulates when none was removed. Slowly, I realized that what I saw was precisely what should be there; *growing at a rate which is a maximum, on a volume of standing trees which approaches a volume limit, the production in excess of the capacity of the site has to die*. The appalling amount of dead wood only confirms that this is a highly productive forest. As Cogbill shows, in other uncut stands there is often as much or more dead wood per acre than live. This condition also should be in our definition of "old-growth."

As Mitch Lansky noted in the Mid Autumn 1994 *Forum*, the heights of the Baxter trees are at the high end of the range reported in other stands by Cogbill. Jensen Bissell and I taped the length of a blowdown spruce at 85 feet; on another part of the stand, I noted sapling and older hemlock, accompanied by smooth-barked beech, that were of similar height. I believe that exceptional height is also an indication of old growth. As Professor Stephen Manley

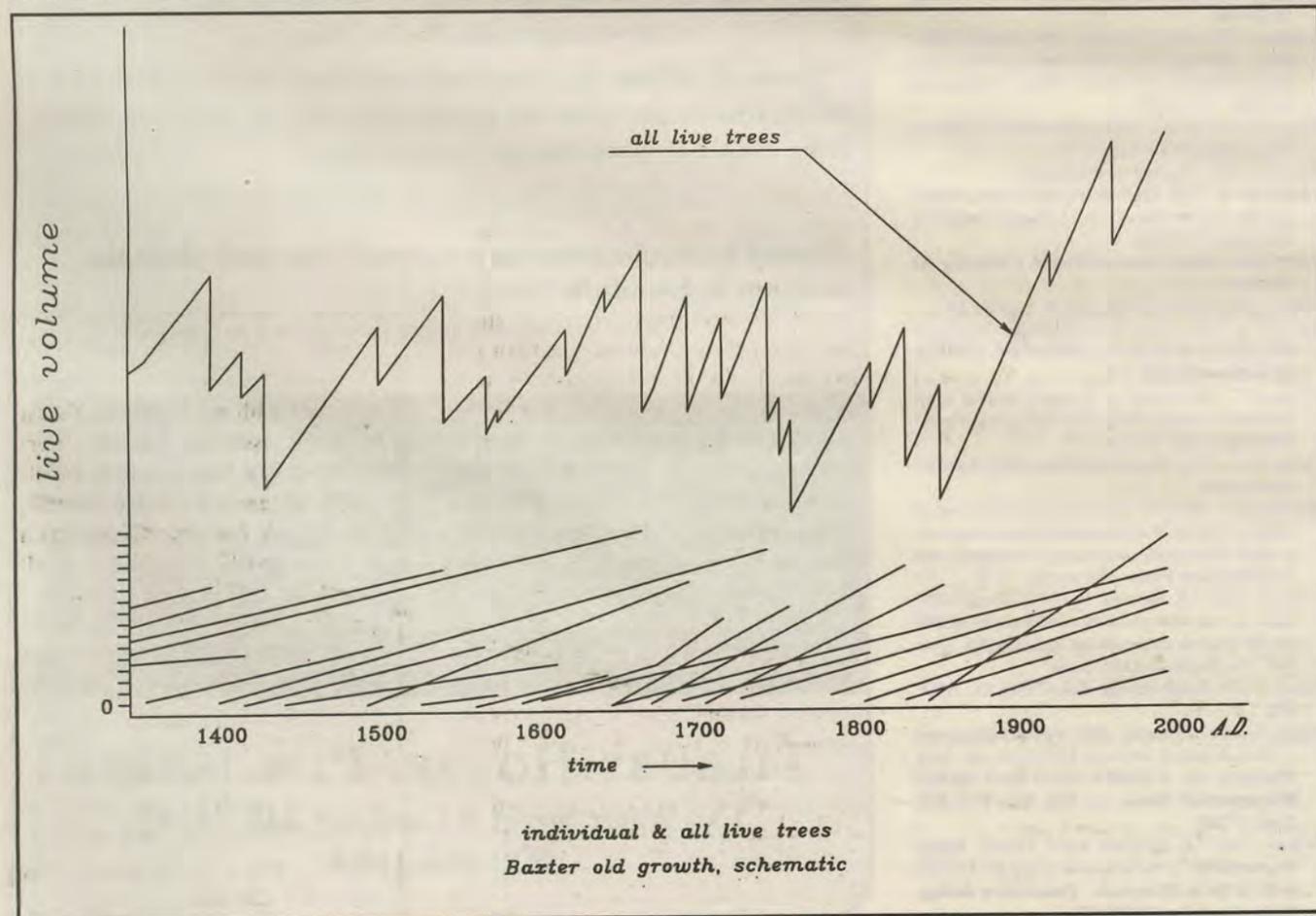
told the Ellsworth RC&D conference in January 1992, clearcutting in the Maritimes and Maine has degraded the ability of red spruce to attain the heights of the stand previous to the clearcutting. As loggers know, tree height is a strong determinant of the stand's volume. Reliance on the concept of basal area incorrectly leads us to assume that the rapid diameter growth of unshaded softwood seedlings equates to maximum volume growth. Rather, we may expect an old-growth stand to show a height much greater than that obtained in a first-generation plantation, with the correspondingly greater volume per tree.

I have seen two differing aspects of the Baxter wood; on the eastern edge we encountered no white pine, no fir, and no fir regeneration, in decided contrast with a portion on the western end that Lansky describes. Bob Seymour tells me that in this eastern area he has encountered a plot with 300 square feet of basal area. Intensive study may show that this portion embodies the red spruce forest we are seeking. To me this suggests that where one finds fir and white pine, the forest has been disturbed, perhaps by human agents.

Let me pose one caveat; there is no *undisturbed, virgin* forest in Maine. I can think of several ways in which we have altered the woods without using axe or saw. In this forest there are dying and dead beech, killed by the introduced scale-Nectria complex. Based on William Leak's statement that about 10% of American beech are immune to the disease, we would have to reconstitute some portions of this stand with the original fraction of beech to give a clearer picture of the stand. Another human intervention might have been spraying for the budworm, if anyone can document that. That such spraying occurred here is in doubt, and, had it been done, what would have been the consequences, intended or not? A very drastic change in these spruce may be the result of air pollution. Flying to Baxter for the *Maine Times*, I saw a sky that was the color of a dirty brass bowl; I asked the pilot if visibility was often so poor. He responded that this was a good day—on bad days you could see only straight down. Should we assume this has no effects on spruce?

Bob Frank of the USFS at the Penobscot Experimental Forest tells me that he has red spruce dying from no obvious cause; the diagnosis is "stress." Manley pointed to the fact on a small spruce patch that I manage that there were no spent cones from recent years, and there is a lack of spruce seedlings. Because these woodlots and the Baxter forest are near paper mills with gross air emissions, we might suspect a linkage. After all, in research on Great Northern Paper's air pollution at Maine DEP, I discovered that the Millinocket mill had operated for a year or more without the filter elements in its acid mist scrubber, without challenge. EPA at Research Triangle tells me that "the local effect of local sources of air pollutants is greater than the local effect of distant sources."

Certainly, the Baxter stand structure does not follow the arbitrarily-imposed "reflected-J" structure of the texts. Probably it is not necessary to have the extreme numbers of seedlings at hand to replace trees that live for



# Aesthetic Considerations & Logging Regulations

The need for opinions to pass scientific muster has given liquidation clearcutters their first line of defense: the hullabaloo over forest practices raised by hysterical crazies is based on "aesthetic," non-scientific biases against de-nuded landscapes.

Clearly, we need a more fundamental conception of aesthetics. Aesthetics are, on one level, what and how we define truth or beauty; more significantly, they are how we respond to our senses, what we make of the gross material delivered by sight, sound, taste and hearing—or sensate mind itself.

The empirical school holds sway in science—demanding that even highly abstract theories of physics and chemistry be demonstrable to the senses—but at the price of holding "aesthetic" response to phenomenon (or even the experiments themselves) "in ceteris paribus." We negate thereby an entire sense, the aesthetic (or moral, or ethical) sense.

There are problems with an attempt to base regulations of forest practices on aesthetic feeling, particularly when soil erosion, for instance, and sedimentation of streams, are much more clearly an offense to our rea-

soned approach to soil conservation. Nonetheless, anyone familiar with an attempt to codify reason into law, particularly where environmental reason is thought to interfere with monetary interest, will accede that political consensus is much easier to reach when most everybody shares the same aesthetic-when law follows culture.

Perhaps we face the consequences of a collapsed set of "aesthetic" beliefs that once steadied culture—such as the Navajo belief that a person must "walk in beauty" or is in dangerous disharmony with creation. Our distance from Nature has resulted in the fact that any assemblage of people, be they voters or the voted-in, will commonly know more of humanity, human activity and human values than Nature. We can't legislate aesthetics but, worse for us, we no longer share a common, cultural grasp of what Nature is.

I was thinking of this standing in a small woodlot this winter, listening to the steady, constant sift of conifer needles and other tree debris falling to the snow. Other times it has been the percolation of rain

through dense forest canopy on a drizzly day. I also thought of it standing on a denuded mountain recently, where most of the "biomass" was removed in clearcuts and high-grading, the exposed soil freezing and thawing all this past, mild winter on the south slope. There, one heard few such subtle sounds; mainly just the portentous croak of New England's ridgetop denizen, the raven. (I ate my lunch without the usual company of the increasingly homeless "gorby" or Canada jay.)

I can think of few ways to legislate the aesthetic standard that, after a harvest, we must still be able to hear and see and overall, sense the cycling of nutrient, water and organic matter. Moreover, I can think of few laws or regulations not starting from and aiming at a common woods experience that will accomplish anything but a mitigation of destructive behavior. Only a shared forest aesthetic at the center of cultural values can force a mirror to present economic patterns that threaten survival, and invite the recognition that we either change or expire.

—Andrew Whittaker



## Baxter Old Growth

hundreds of years, but we should study whether regeneration here is suppressed by anthropogenic pollution. 1994 was generally a great year for seed production on many species. We should check at Baxter.

In the accompanying Figure 1, I have sketched the life-lines (trajectories) of approximately six spruce growing in Baxter Park. This number would occupy a small fraction of an acre, for example. The volume of each of these individual trees is shown in the lower portion of the figure. Note that the ages are within the range of those encountered in the limited sampling already done. I submit that tree volume over time is the first quantity we need to determine. The upper curve is the arithmetic sum of the individual tree volumes for each year. It appears reasonable to state that overall volume on an area will increase as does the number of contributing trees; in a long time frame, the shape of the individual tree's trajectory is not as critical to the total level of stocking. You may notice in the upper

curve that the death or removal of a single tree decreases the stocking by the final volume of that tree.

This is the event that panics foresters: "We lost a big tree, the stand must be cut!" How about this? Well, as George Bourassa of the MFS published during the budworm explosion or scare, killed fir and spruce can be used for lumber for a year or two after demise, and for more years than that for making paper, without loss of quality. It was encouraging that Terry Bell, of Tide Mill Farms, Lubec, told me his grandfather said, "You don't cut a tree before it is dead."

It is true, nevertheless, that in the small population I have diagrammed, loss of one tree reduces that area stocking greatly. So, let us think of the cumulative stocking line for a large area, even the whole of the Baxter wood. The volume overall is very high by the standards of U.S. forestry schools, if not by German standards. This cumulative level is one of the important things we can measure. For a larger population, the loss of individual trees will displace

the curve just as does mortality on a smaller area, but the mortality will be dispersed in time, giving a graph that resembles a coarse-toothed rip saw. (Mortality occurring all at once is known as a catastrophe or a clearcut.) Measuring the overall mortality will test this hypothesis. I suspect that the curve for the general population will show less short-term perturbation than my Figure 1; in fact I expect it will approach the "steady-state" condition, bounded by the upper limit of the system's productivity. Hypothetically, this upper limit is enforced by the mortality of individual trees. The amount of mortality is, I believe the most important measure we can obtain of Baxter's wood.

Tree mortality is, in turn, the limit of what may be removed from the forest without further reducing the growing stock. Here at Baxter we have a priceless opportunity to test this thinking, and to compare this stand's productivity with what is expected through even-aged, "intensive" management. Let us test the hypothesis that we can obtain

maximum social benefits, including employment, and fiber production, while maintaining a magnificent forest.

Bill Butler, *Friends of the Maine woods*, is a lifelong woodsman and regular contributor to the *Forum*.

## Atlantic Forestry Review

For those who wonder what is going on with the Northern Forest when it crosses the Canadian border, there is a new, quarterly publication, *Atlantic Forestry Review*. The *Atlantic Forestry Review* has a regional focus and covers such issues as woodlot management, markets, industrial forestry, local controversies, forest restoration, and wilderness. Although published in Nova Scotia, the magazine has also featured New Brunswick, Prince Edward Island, and Newfoundland. For more information, write to George Fullerton, c/o DvL publishing, P.O. Box 1509, Liverpool, NS, BOT 1KO, Canada.

# Citizens Keep Track of Vermont Wildlife

by Fife Hubbard

*Keeping Track*, a non-profit organization incorporated in Jericho, Vermont in September 1994, represents the latest evolutionary step in the career of wildlife habitat specialist and tracker Sue Morse. Over the past ten years she has been working on a project called *Room For Me and a Mountain Lion*. She has participated in research projects that have taken her across the country and into Canada studying wild cats, bears, and carnivores in general. Asked about her background though, Morse credits the woods as her most influential teacher: "I grew up in the forest, I learned about the forest from the forest."

Along with a board of trustees and 19 project advisors, she has begun a process that may revolutionize the way wildlife is monitored and protected in Vermont. The guiding principle behind *Keeping Track* is that if citizens are concerned about preserving the wildlife of their region they had better get out there and get involved. Morse is convinced that by giving citizen volunteers the tools to conduct systematic track and sign surveys, critical areas of habitat and wildlife corridors can then be mapped and consulted during local planning board decisions. "This process is new to the east. In the west we've been conducting surveys for some time, but not with local volunteers. The volunteer surveys here in Vermont will be refined; the important thing is we're doing it," says Morse. "It's time for citizens to get involved in local wildlife habitat monitoring." It may be new but according to everyone involved its a lot of fun.

The year to year data surveys *Keeping Track* is enacting will document:

- the presence or absence of sensitive, endangered, or other target species;
- repeated uses of specific habitats which could lead to the identification and conservation of critical habitat areas and/or travel corridors;
- positive or negative changes in the sta-

tus of wildlife populations inhabiting an area, and corresponding changes in habitat size and quality; the need for immediate and long-term conservation planning.

In March, after two postponements, due to rain in January and a blizzard in February, the members of a citizen's group to protect the Lewis Creek Watershed in Addison County gathered in Morse's library for a pre-hike briefing session. Sue Morse's library deserves special recognition. It is an incredible amalgamation of wildlife titles and artifacts, the walls are festooned with her photography of the wild carnivores she has spent so many days in the woods studying. Sitting on the rug in a circle we discuss the methodology we will be introduced to at Wolf Run (a 165 acre wildlands tract where Morse teaches and serves as caretaker). The goal is for groups like this to plan routes that pass through various habitat types on the land in question. By walking these routes at least once a season (under roughly the same conditions) surveyors will systematically gather data on wild residents and possible wildlife travel corridors. The ultimate objective of *Keeping Track* is to empower local and regional planners with a biologically sound structure for discovering, monitoring and conserving our wildlife neighbors and their necessary habitat. Morse sees this type of planning as inevitable if we are going to protect the wildlife of Vermont she believes are most sensitive to human development: fisher, otter, mink, moose, bear, bobcat, and possibly cougar. "Planning is like recycling, its just going to happen. If not, we're going to have the federal government in here spending mega-millions on species reintroduction, and endangered species crisis management"

Morse hopes the groups she trains can intervene where development and wildlife collide. She holds up two maps. The first shows current black bear habitat in Vermont. The second map depicts bear habitat that is currently protected,

it represents about ten percent of the landbase shown in the overall habitat map in bits and pieces scattered over the state. Without stable, protected areas of habitat that are interconnected, Morse contends that the black bear and other wide-ranging carnivores face an uncertain future in Vermont.

After an hour or so discussing methodology the group is ready to embark on a hike Morse promises to be about five miles, winding through the valleys and topping the ridges of Wolf Run. But it is not until people start struggling into heavy boots and shrugging on backpacks that the awesome potential of *Keeping Track* is revealed. Soon the group of 15 including a school teacher, a woodworker and horse logger, a homemaker, a natural resource consultant, a hunter, and a ferryboat operator are either grinning widely or squinting in the warm March sun eager to start. Rather than supporting environmental protection by word, these people are prepared to drag their bones over hill and dale to learn how they might take action at the citizen level to protect wildlife habitat. The Lewis Creek Watershed Association, and any other of the 122 alumni/ae of *Keeping Track* will be successful in wilderness protection because of the relationship they develop with their natural environment during outings like this one. As Morse says, "People don't know who their wild neighbors are. If we don't know who they are and how they live, how can we be committed to their protection?"

As the last straggler emerges from the outhouse (which incidentally is as artfully decorated with wildlife memorabilia as the library) Sue approaches with four additional members of the group. Amarak (Inuit for Spirit of the Wolf), Sunguk (Inuit for Sunset), Sasha (a pretty name for a pretty girl), and Willa (as in Willa Cather) have joined us for the hike. Sue introduces the four German shepherds by name and personality. They carry packs and walk in single file behind Sue, more like German sherpas than shepherds. The dogs carry the emergency supplies humans may have overlooked.

Underway, the group tromps through a hemlock forest and up a hill to a vista that fans out to the North. Sue points out the ancient bed of Nashville lake, now a wide plain girdled with forest. She explains that many of the dispersing moose that highway travelers are warned of by signs on the section of I-89 between Jonesville and Bolton originate here. The mix of habitat types account for the richness of Wolf Run. Boreal and sub-boreal forests flank down to the lower elevation foothills that are dominated by mixed hardwood forests of maple, yellow birch, hemlock, red spruce, and scattered stands of red oak and black cherry. The habitat mix is both diverse and connected, and that gives creatures access to all types of food and cover opportunities. After a round of introductions we set off ready to investigate this diversity.

The first set of tracks we stopped to examine tumbled down a hillside across our path and down along a small brook. No one was confident enough to positively identify the maker of this set of tracks, so we learned Sue's first maxim

of tracking. "When in doubt follow it out." We followed the tracks in both directions, trying to picture the critter by the angle and size of the prints, judging the size by stride and straddle measurements (the longitudinal distance between prints, and the width of the track respectively). We concluded that this animal had a waddling gait, and were taught to recognize the classic hand/foot — foot/hand couplets of the raccoon. There was some confusion as to how raccoons produce such a track, so Len the horse logger and Chris the watershed association organizer did their best 'coon waddle. This was the first episode of shapeshifting. Throughout the day various trackers assumed the forms of deer, moose, and both left and right handed bears (paw preference exhibited by each boars' tendency to mark the trunk of a tree with one or the other paw).

Further along we came upon the tracks of a fisher, offset pairs of bounding prints. Offset meaning that in each pair of prints one appeared slightly ahead of the other. A good fisher print showed four toes with claws oriented in an arc, with a fifth positioned thumb-like. We are told that Native Americans called the fisher "black snake" or "little Bear". Morse explains that these resourceful omnivores are known to climb beech trees and feed on the nuts as bears do. Later, we found their claw marks on the smooth bark of beech trees. This fisher wasn't after nuts though, it was traveling along ledgy country looking for another favorite fisher meal the porcupine. Indeed many of the hemlocks in the area showed where they had been browsed heavily (porcupines prefer the new growth of hemlocks rather than the bark due to the high tannin content of the older wood); this fisher Sue pointed out was a "smart shopper".

Linking creatures to specific habitat types through their behavior is central for studying the ecology of the forest. By studying these relationships it is also possible to create habitat types for different species. Sue showed us two patch cuts she had done to cater to the needs of two different species. The first we came across was done to create habitat for snowshoe hares. Older alders were cleared from a soggy streamside to allow the young suckers hares depend upon to sprout. "Forest managers can do double duty by managing for quality hare habitat. Small irregularly shaped patch cuts with nearby thick stands of young conifer growth for escape and travel cover are important to hare populations. This lagomorph," Sue pointed out, "is a 'keystone' prey species for many of Vermont's fur-bearers, including fisher, bobcat, and coyote."

Another cut had been done for deer. By clearing an area of a quarter acre or so, seeding it with clover, and providing mineral licks of phosphorus, magnesium, calcium (minerals our upland soils are deficient in), she has created an optimum feeding area for whitetails. Adjacent to the clearing we came to a tree that had been torn up by a boss buck. The buck rub is used mostly for scent marking. This tree was gouged deeply by the brow tines of a twelve pointer Sue had observed.

Nearby we came across a white



Bobcat in tree—Utah. Photo © by Susan Morse

spruce that had been rubbed in a different manner by a moose. The tree was knocked nearly flat, with the branches bent downward. She quizzed us on what this moose may have been doing, but we drew a collective blank. Scratching its belly I thought to myself naively. "I showed this tree to a group of students from a Catholic private school that was accompanied by a couple of nuns. One of the tougher looking kids, you know the type, destined to wear a cigarette pack rolled up in the sleeve of his Tee-shirt, said, 'I know what that moose did, he scratched that tree.' The nuns gasped, but he was right. The moose used this tree to masturbate, something that moose and deer are known to do."

We came across the tracks of our second mustelid of the day a little further along. This one was bounding down a hill sliding sometimes for ten or twelve feet on its way to a stream. Its bounding tracks were offset like those of the fisher. The width of the slide was only 3 or 4 inches and the stride was eleven inches and sometimes longer. While much smaller than the otter, the mink's playful nature and exuberance is obvious from looking at the slides, or "slips" where the animal had "belly-flopped" its way down the hill. Our guide's exuberance was just as clear, "Cool as a moose" she exclaimed. Morse credits the stabilizing otter and mink populations in Vermont in large part to the Clean Water Act. "I've seen a dramatic increase in the 25 years that I've been here. I attribute this not only to the Clean Water Act, but also to the ultimate real estate developer—the beaver." The Clean Water Act works by reducing the levels of toxins in the water. The ambient levels of waterborne toxins can be amplified up to a million times through bioaccumulation in predators atop the aquatic foodchain.

Over the afternoon, Morse's infectious enthusiasm for the wild denizens of Wolf Run began to work on us. We were exhibiting the unmistakable symptoms of "biophilia". Harvard University biologist E. O. Wilson defines biophilia as "the innate tendency to focus on life and lifelike processes." "From infancy we concentrate happily on ourselves and other organisms. We learn to distinguish life from the inanimate and move toward it like moths to a porch light." As we age, all too often our natural affection for non-human life becomes subordinate to our more selfish human desires. A few thousand years ago this caused little controversy. As Wilson says, "For millions of years human beings simply went at nature with everything they had, scrounging food and fighting off predators across a known world of a few square miles." The balance of power in our world has shifted. Human beings now have the ability to destroy the natural world on a much grander scale, necessitating that we embrace our biophilial roots. As Sue told us of the bobcats she knew that utilize two distinct territories along the ridges separated by the valley we were walking through, those old feelings began to surge to the surface. As we began to note bear scars on the beech trees we walked between, it was clear we were in its nature-loving grip, we were once again biophiliacs.

The beech tree is terrifically important to the bear Sue told us. "In Vermont and throughout the northernmost expanses of black bear range, a bear's



*Black Bear. Photo © by Susan Morse*

entire three-season feeding investment in the securities of fat is frequently a losing proposition. The rigors of long, cold winters coupled with hard frosts and drought during the growing season can result in food shortages which profoundly affect bear productivity and recruitment." "Black bears do two things in the late summer and autumn. They feed constantly, up to 20 hours a day, and they travel, often for miles in search of the dependable and alternative food resources they require. Bears in Vermont have been drawn 30 to 40 miles in order to feed in a specific stand of beech." If an impregnated sow has put on the necessary amount of fat before she dens up for the winter she will give birth to typically two or three cubs, if not her pregnancy will be aborted.

We saw three types of bear sign in and on the trees. The most obvious were the claw marks on the trunks of beeches that had been made by the bears as they climbed. The second were the more subtle scratches on the trunks the bears had made marking the tree as part of their territories. In addition to scratching, bears, both sows and boars, will mark a tree or limb by chomping down on it with their jaws. Marking behavior is tremendously important for wild creatures, but not so well understood by humans. What is clear though is that marked trees serve as both visual and olfactory means of communication, probably enabling a peaceable alternative to physical conflict through "mutual avoidance." Fights in the animal kingdom are very rare, for the simple reason that they are very costly to the combatants. It's enough work for the bear to feed itself. Fighting is an enormous waste of energy and brings with it the possibility of injury or death. The third type of bear sign we came across was an enormous "nest". Once a black bear reaches the crown of a beech tree it finds a comfortable place to rest, then pulls the branches in towards itself to gather the nuts. After a day of feeding

in a tree, a bear may have pulled enough branches in to form a giant nest. The bears don't spend too much time in these nests, in fact often they are used only once by the bear.

After climbing a hill to see the bear nest we headed back to Sue's house. We had spent a little longer in the woods than expected, so we hot-footed it along the ridge with Sue and the dogs in the lead. We stopped briefly to investigate the tracks of a pair of coyotes, noting the difference between domestic and wild dog tracks (the middle two toes of coyote tracks extend farther giving the wild dog tracks a more rectangular appearance). We also stopped to investigate an uninhabited goshawk nest. The goshawk, or "Blue Darter," is the largest of the accipiter family of woodland hawks, adapted with long tails, short, blunt wings, and a fuselage with the girth of a football. The goshawk uses these formidable attributes to maneuver through trees while hunting grouse. If you have ever been startled while walking through the woods by a large hawk crashing through branches or swiftly swooping between the trees it may have been a goshawk. During the nesting season they are fiercely territorial. Sue told us that the bird that lived here once buzzed her pretty closely.

About halfway back to the house Sue, walking ahead of us, began calling, "Here kitty, kitty". As we came upon her she was holding the German shepherds back and pointing to the ground. She wasn't afraid of the dogs chasing any cats; she just didn't want them to obscure the tracks of a bobcat in the snow. Judging from the size of the tracks this one was a sub-adult. As we had all hoped, we had come upon the tracks of one of the three bobcats Sue believes are currently utilizing the woods of Wolf Run. Sue surmised that it was a female because it was sharing the habitat of an established "Tom". A situation the older cat would not tolerate were the youngster a male. Even if Sue had not told us that wild cats were her

passion we would have known from her reaction to these prints.

It has taken over two decades for Sue to develop the familiarity she now has with the wild creatures of Wolf Run. Over those years she has witnessed political trends that have both thrilled and exasperated her. Yet through it, the wildlife of these 165 acres has flourished because of the gentle generosity and respect the owners have shown to the land. Despite current political maneuverings to roll back environmental regulations, she remains optimistic: "For those exhausted disillusioned, and disgusted about current trends threatening to throw out everything we've worked for—endure. We must fight now with all the love in our hearts for the planet—for all living things. There's an alarming reticence and odd embarrassment some of us now feel; we've been bullied into silence, even questioning the validity of conservation principles and the moral values that underlie them. Yet, if we are to survive in centuries to come—human kind and bobcat alike—it will be because a few of us stood up for what is right. It's as simple as that. Think of it as our ultimate challenge."

As we shuffle around in Sue's driveway, changing back into our driving shoes, and saying our good-byes, it does seem simple, as clear as the silhouette of the hills from which we have just descended. Protecting the wildlife around us requires that we acquire an understanding of it and respect for it, starting in our own yards and radiating outward. And just as it would be unthinkable for Sue to compromise the future of the young female bobcat that is up in the hills of Wolf Run, so will it be for us to threaten our own wild neighbors.

*For more information write;  
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Jericho, VT 05465*

# A Primer for Community Sponsored Ecological Inventories

by Brad Meiklejohn

*Ed. Note: The establishment of ecological reserves requires that we conduct ecological inventories of our communities. We can wait for the "experts" to conduct these inventories, or we can do them ourselves, thereby gaining priceless first-hand knowledge of our homes and engaging our neighbors in this important and rewarding exercise. In 1994 Brad Meiklejohn directed a superb ecological inventory for his town, Randolph, NH. In this article he tells how to do a very inexpensive, yet scientifically important inventory. To get a copy of "A Natural Features Inventory for Randolph, New Hampshire" send \$10 to Meiklejohn, Box 1420 Durand Rd., Randolph, NH 03570. This article originally appeared in Wild Earth, Winter 1994-1995.*

Our culture has a bad case of ecological amnesia. We are accepting a degraded environment as "natural." Urban kids grow up not knowing that air and water should be clean; suburban kids think starlings are real wildlife; rural kids believe our scrubby third-growth woodlots are real forests. We are forgetting what belongs here.

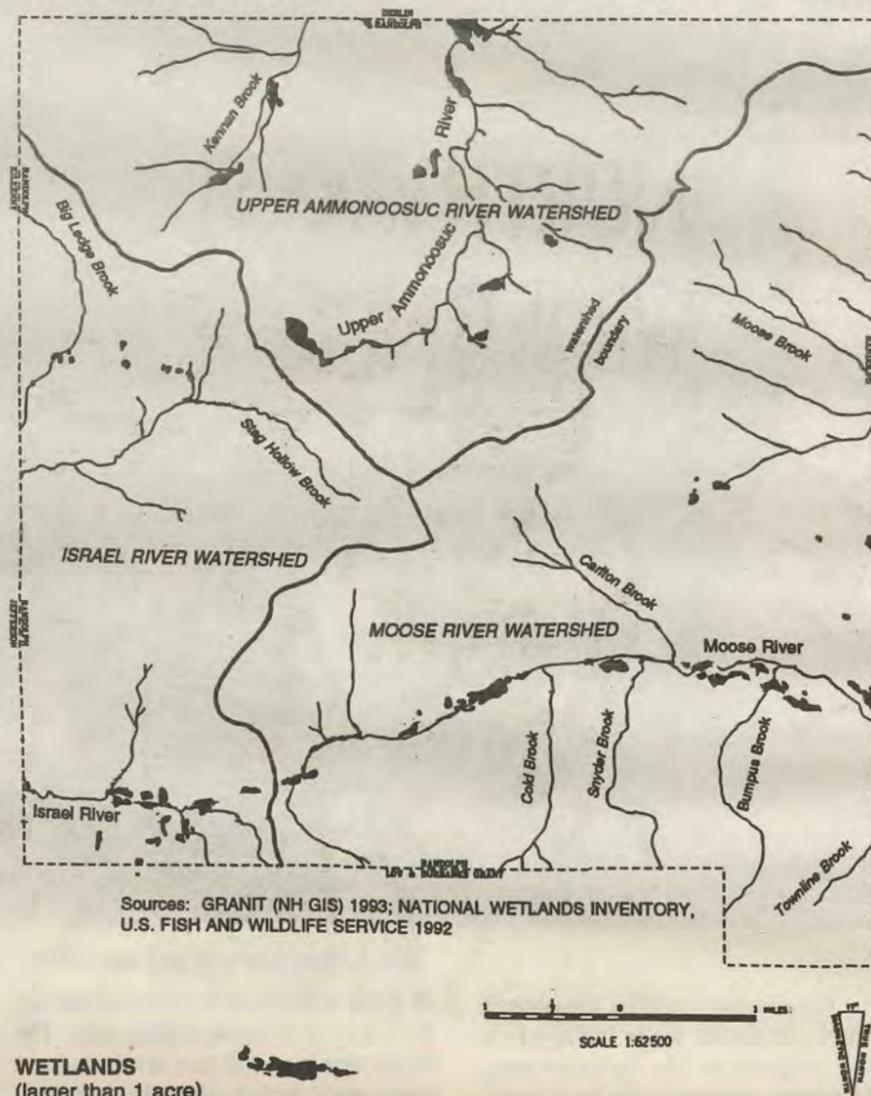
Take New England as an example. On the whole, the region is in sad ecological shape. Most of the top-level carnivores are regionally extinct, all the major rivers are dammed and polluted, fish stocks and songbirds are in serious decline, exotic species and habitat generalists are widespread. Our forests have suffered a century of clearcutting, high-grading, herbicides, and exotic pests, and many habitats have been destroyed or badly fragmented. Yet few people who live here comprehend the extent of degradation. A common upbeat refrain from the region's timid environmentalists is that New England is more forested now than at any time in the past two hundred years. Talk about not seeing the forest for the trees...

We should strive to recover what has been lost. If we concentrate only on protecting what remains, we are conceding great biological defeat. While our parks and preserves safeguard the spectacular or the unusual, we have failed to protect typical or average landscapes. As a culture we are in danger of forgetting what is natural. We must remember what belongs here and work for its return.

We should start where most of us live—on the "common lands." The "ordinary" forest and the "average" prairie were the first to feel the axe and the plow. In the valley bottoms, rolling hills, and river mouths we built our farms, cities, and highways. We settled the common lands because they were easy places to live—places of rich soil, abundant wildlife, and moderate climate. From an ecological point of view, we took the best first. Human development of the common lands has usurped the biologically-richest habitats, denying many species access to breeding grounds and reliable food and water.

We can start by recovering knowledge of the common lands.

When people know the importance of their backyards and their towns, they will support restoration efforts. Knowledge—of what is, what was, and what could be—can catalyze a commu-



## Watersheds & Wetlands in Randolph, New Hampshire

nity. I know one town where it happened.

I recently compiled a natural features inventory for Randolph, New Hampshire, a 30,000 acre community of 400 residents. The research was full of surprises, for me and for town residents. I discovered that 11 animals and 14 plants listed as threatened or endangered species occur in town. I determined that Atlantic salmon used to spawn in one of our rivers before the construction of dams, and that a rare species of trout was eliminated in the 1960s by chlorine "reclamation." I learned that the last wolverines east of Minnesota were killed in our county in 1922. I located a 40-acre remnant of ancient forest with 400-year old hemlock and yellow birch, and watched the autumn migration of thousands of birds moving along a major flyway.

Enlisting townfolk in the inventory process was the key to success. Trappers told me of wolves passing through in the 1960s, loggers helped me find the last of the big trees, and kids showed me the snakes, salamanders, and turtles they caught. It seemed everyone was a birder, botanist, geologist, or mycologist eager to share his or her life list. It was not just my inventory—it was *our* inventory.

Most "resource" inventories are utilitarian in style and content, with obligatory sections on timber, minerals, deer yards, game and fish. Some towns opt to use a Geographic Information System (GIS) to produce all kinds of pretty maps and overlays. However, with a budget of less than \$500, an aversion to technology, and disdain for the word "resources," I opted for a more traditional route. In the style of early naturalists, I wrote an integrative

description of the disparate pieces—climate, glacial history, soils, flora, fauna, migration routes, watersheds, wetlands, land use history, regional context—to depict an evolving natural history of the town.

So far the town has distributed 300 copies of the inventory: to residents, local and state politicians, absentee landowners, the US Forest Service, adjacent towns, and conservation groups. To my pleasant surprise, I now hear words like "corridors," "fragmentation," and "biodiversity" rolling off unexpected lips. People talk excitedly about the return of cougar and wolf, about closing roads, about logging restrictions, and...about wildlands recovery!

This can happen in any town, and it should. Compiling a natural features inventory for your town is neither difficult nor expensive. It is a great project for a graduate or college student, and some towns might even provide scholarship funds in return. High school and grade school students can contribute by compiling lists of birds, mammals, amphibians and insects.

Chances are good that most of the information you need already exists. The following are good sources to check:

- Every state has a Natural Heritage Program which maintains records on the distribution of rare plants and animals (although some programs are more functional than others). These can provide you with a list of the species known or expected in your area of interest. Look them up in the telephone directory, or call the state office of The Nature Conservancy.

- State fish and game offices should have species range maps, fish stocking records, trapping records, road kill data

and deer yard maps.

- Topographic maps available from the U.S. Geological Society (USGS) enable you to delineate watershed boundaries, locate springs, and identify roadless areas. While at the USGS, pick up a geologic map. Pay particular attention to unusual rock types, formations, and features. Limestone and serpentine are two rock types that often support uncommon plants. Look for cliffs as possible nesting sites for raptors. Talus slopes and caves are often ecologically unique sites, where rare snakes, small mammals, or invertebrates may occur. Steep, rugged, or inaccessible terrain can hide pockets of old growth forest.

- The local branch of the Audubon Society should have breeding bird and Christmas Bird Count data and should know most of the birds in your area.

- National Wetlands Inventory (NWI) maps are available for most of the country from the US Fish and Wildlife Service. Seek bogs, fens, swamps, marshes, flood plains, springs, and seeps. FWS can also provide you with a list of the federally protected species in your state.

- Aerial photographs are useful for identifying cliffs, wetlands, vernal pools, and old-growth forests. The best source for these is the nearest Soil Conservation Service (SCS) office, where you can also find soils maps.

- County and town offices usually have property maps; and town, county and university libraries may have useful historic or scientific documents. General Land Office survey notes can be especially helpful for determining natural vegetation conditions at the time of European settlement (Cornett 1994). Kuchler's Potential Natural Vegetation of the Conterminous United States (1964) is a useful reference to what should occur in your areas. *[Ed. Note: But in some regions, Kuchler's map is highly misleading, as it portrays a mythical "climax" vegetation rather than what really occurs with a natural disturbance regime.]*

Talk with hunters, trappers, farmers, fishermen and long-time residents. Find out where the best springs are, where rare plants occur, and where animals feed, migrate, den, and hide. Identify unusual places and biotic hot spots, as well as the typical or representative forests, wetlands, or deserts. Piece together the history of disturbances such as fire and storm, as well as human disruptions such as logging, and speculate on the vegetation changes over the past two hundred years.

Evaluate the extent of fragmentation, the severity of environmental impacts, and the feasibility of wildlands recovery. Place your town in a regional context and determine critical linkages and wildlife travel routes. Finally, try to weave all the pieces together in a narrative mosaic, blend in some useful maps and nice art work, add a glossary for clarity, and print the natural features inventory for your town.

If you do not have time to do a complete inventory, bite off any piece that is useful. Possibly the two most important pieces of information are: 1) lists of threatened and endangered species and; 2) National Wetlands Inventory (NWI) maps. If you suspect a proposed development or logging oper

*Continued on page 30*

# Term Wilderness Reserves—An Idea Whose Time Has Come?

## Introduction

When I wrote this piece, over a year ago, the Northern Forest Lands Council was still working on finding "Common Ground" amongst the various interest groups. I had been subjected to an overload of papers, hearings, conferences, and meetings. My saturated mind took two of the most disparate positions—environmentalists' call for big wilderness (often in areas that had already been severely cut) and industry's call for tax breaks and easements—and put them together in a logical, but (I thought) absurd pairing; a "term wilderness."

I thought it rather funny, and showed my idea to a few other people who had been involved in the Northern Forest Lands process. They thought it was funny too. Because it had a bite to the humor, I thought it best not to publish it, for fear of offending anyone.

Time passed, and I almost forgot about this little satire. After attending several meetings of the Maine Forest Biodiversity Project, however, I realized that what I thought was a satire based on an absurd idea, others thought was a serious, sensible proposal. I noted at least three workshops where various elements of the "term wilderness" were discussed with straight faces and enthusiastic support.

I am considering renouncing satire. I no longer think this piece is funny. I begged the editor not to publish it, but he is perverse and would not be dissuaded.

—Isb Kabibble

\*\*\*

Ted Gallstone, the Executive Director of the Northern Forest Products Council has served his constituents ably for over a decade. He recently came up with a new proposal for a win-win solution to one of the most contentious issues—wilderness reserves. Editor James Psion caught up with this busy executive at a hearing last winter in Augusta, Maine.

**Psion:** As you know, I have been advocating wilderness reserves for years, so I am very interested to hear your proposal. What is a "term wilderness reserve"?

**Gallstone:** A term wilderness reserve satisfies the need for certain environmental groups to point to wilderness areas on the map, and it satisfies industry's need for obtaining wood at a reasonable cost. "Term wilderness" means that the wilderness is not permanent. It is designated for, let us say, 50 or so years, and then the landowner has the option to change the classification. This gives both biologists and landowners more flexibility. We do not know what conditions will be like a half-century from now, so why set our wilderness in stone (so to speak)?

**Psion:** You say "the landowner." Does this mean that the land is still in private hands?

**Gallstone:** Yes, the land is still owned by the original landowner. It a type of term easement in which the landowner cannot do any cutting during the term.

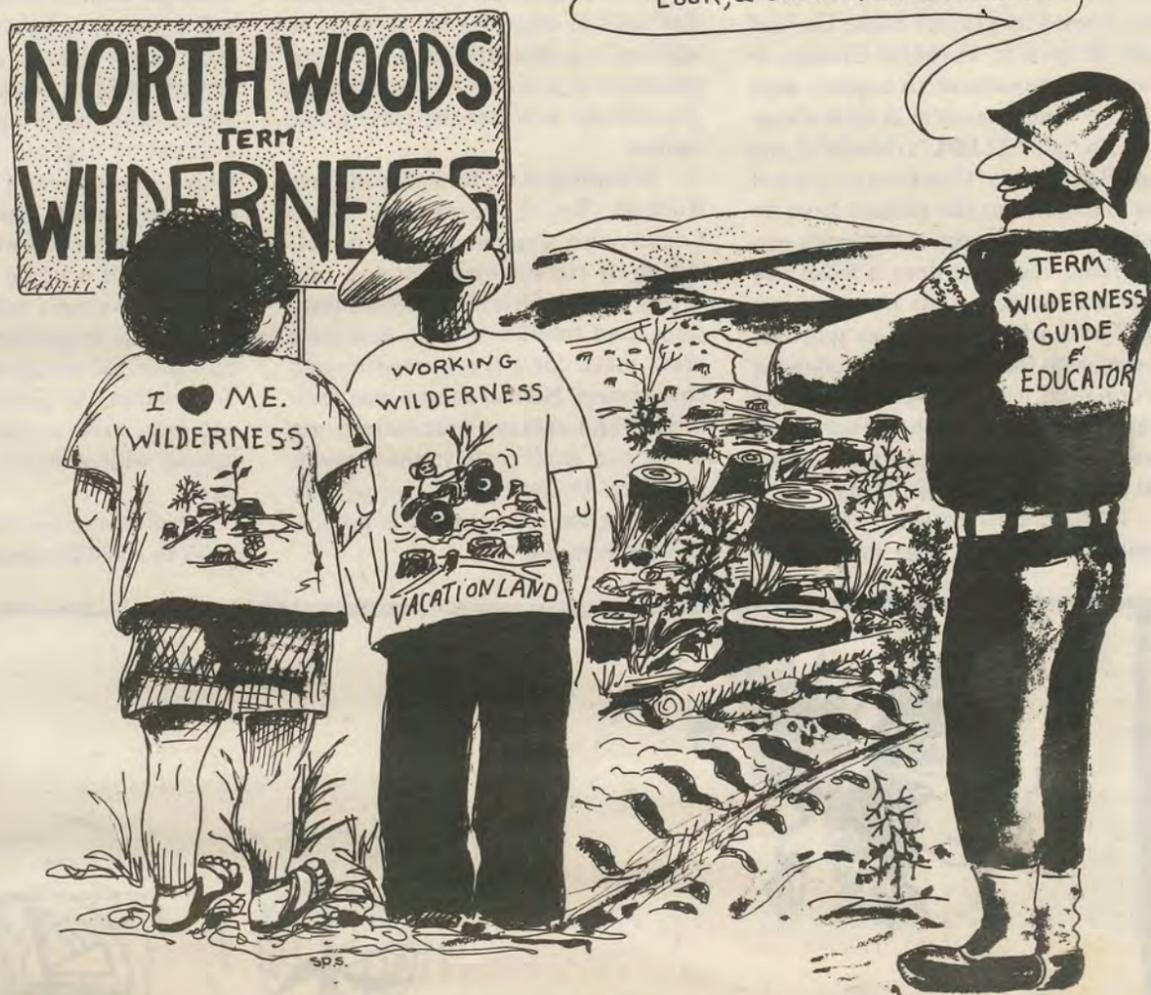
**Psion:** What is the responsibility of the public in this wilderness "easement"?

**Gallstone:** Since the public is getting all the benefits, the public pays all the costs. That means, the public pays 90% of full acquisition price plus all the taxes. If necessary, the public might pay to maintain access roads.

**Psion:** You said that there will be no cutting for half a century. Could there be cutting right before the land becomes declared "wilderness"?

**Gallstone:** Yes. In fact most of this land would be cut immediately before the term begins. This is supposed to be a win-win arrangement, after all, and industry does need the wood and the income.

**Psion:** Are there any restrictions on what type of cutting is legitimate in a term wilderness reserve?



**Gallstone:** As I said, there would be no cutting once the land is in reserve status. Before the change, however, cutting would imitate natural disturbances.

**Psion:** You mean, insect attacks or small windthrow?

**Gallstone:** No, actually we were thinking more of larger disturbances.

**Psion:** Fire?

**Gallstone:** Actually, we were thinking of glaciers. Loggers would remove all the wood over a very wide area, and progress yearly along the front as would a glacier. Of course, with modern management, we can "speed up" nature. Instead of cycles in the tens of thousands of years, we are thinking of 50 year cycles. This would allow us to meet the needs of consumers and at the same time meet the needs of wilderness hikers. Because the boundaries of this type of wilderness are constantly shifting, another name we use to describe it is a "rolling wilderness."

**Psion:** Let me get this straight. You are saying that the land will be completely clearcut. It will then be called a "wilderness" for 50 years, during which time the public will pay for an easement plus all land taxes, and then the landowner can go in and clearcut it again?

**Gallstone:** Yes, I believe you've got the idea.

**Psion:** Just what type of "hikers" do you envision using these reserves?

**Gallstone:** An objective scientist, Dr. Michael Coughman, has proven that clearcuts are biologically superior to old growth, the decadent stage commonly found in a traditional "wilderness" area. One obvious benefit, currently being demonstrated on a study on industry lands (with some industry funding) is that bird diversity increases shortly after clearcuts. We expect that bird lovers will flock to these term wilderness areas. Wide-ranging animals, such as moose, thrive in clearcuts because of the browse. Hunters (and hunting will, of course, be allowed) will find that their view of game animals will be unobstructed.

**Psion:** What will the impact be on local communities?

**Gallstone:** Unlike the normal "preservationist" wilderness, where the timber is locked up, the term wilderness will supply wood for industry, thus it will sustain logging and mill jobs. More important, it will open up new jobs for those loggers who have been displaced by mechanization. They can be wilderness guides for those who wish to observe the birds and other animals.

**Psion:** I find it hard to believe that you will get any environmentalists to go along with such a scheme.

**Gallstone:** Environmentalists need to be able to tell their constituents that they have accomplished something. You must remember that in Maine, environmental groups supported a Forest Practices Act that allows landowners to legally cut over 90% of the volume of wood in a township (excluding deer yards and aquatic buffer zones) in one swipe. These groups were proud to declare that forest practices are now "regulated." There are also many groups proud to list all the land in "conservation easements" where landowners can still cut in their "traditional" manner (removing whatever is marketable). I suggest that many groups will be proud to say that a large percentage of the Maine woods is in "wilderness"—where no cutting is allowed.

**Psion:** Just how big a percentage are you looking at?

**Gallstone:** There are already several million acres available in northern Maine for such classification. If the past rate of heavy cutting continues, most of northern Maine could be considered "wilderness" within a few more decades.

**Psion:** Aren't you concerned with opposition from some of the more radical groups?

**Gallstone:** No. We have all the money, and we have all the power. There is nothing they can do that would bother us in the least. They have no credibility. They are no threat. Aside from these extremists, we believe that our proposal best creates the "common ground" so desired by the Northern Forest Lands Council.

# Western Maine Wind Power Proposal~The Soils Issue

by Pamela Prodan

Kenetech Windpower proposes that hundreds of turbines be strung along mountain tops and ridge lines on remote land owned by Oxford Paper Co. and S.D. Warren in Franklin County. It chose the mountains to capture high velocity winds prevalent at those elevations. In light of LURC's (Maine's Land Use Regulatory Commission) legal requirement that the project have no undue adverse impact to the area's natural resources, what does it mean that there are sensitive soils in the project area? Also, what measures are proposed to deal with these soils? The following information from the record strongly suggests that Kenetech cannot prove there will be no adverse impact to the soil resources in the project area.

P-MA (Protection Mountain Subdistricts) include areas above eleva-

tion 2,700 feet. Among the soils there are fragile soils called cryic soils. Kenetech's prefiled testimony acknowledges that these soils are more susceptible to erosion/sedimentation problems than soils in other thermal regimes. In addition, it is often difficult to detect the presence of a water table, although groundwater is potentially close to the surface.

According to the testimony of Dave Rocque, for the Soil and Water Conservation Commission, the combination of steep slopes, intense rain events, high precipitation, cool temperatures, and shallow soils in mountain areas make for a fragile and unique environment. Normal construction techniques and erosion precautions are oftentimes inadequate in these areas; therefore, the potential for negatively impacting the environment is proportionally increased.

Rocque describes cryic soil as follows: the average soil temperature at 20 inches in the soil does not exceed 42° Fahrenheit for June, July and August. Biologic zero is considered 41° F, so soil temperatures are just barely at the level where biologic activity, including growth of plant roots, can take place. These soils build up a considerable amount of organic matter in them, which gives them a property called thixotropy, which means if compressed when moist, the soil will go from a solid into kind of a liquid and just turn to mush. In Rocque's opinion, these kinds of problems are probably more of a concern than the actual slope of the land. To illustrate, he points out that in the summer, rain events may be very intense, with an inch of rain in 10 minutes.

According to Rocque, in recent years he and other scientists have devel-

oped something called soil potential ratings for low density development. What this does is look at the potential of a soil for building roads, buildings with basements and septic systems. However, cryic soils haven't been rated yet because there hasn't been much of a need to do it.

Still, Rocque points out that one of the cut-offs for where severe limitations kick in are where natural soil slopes exceed 15 percent and where there are other factors such as the climate and the cryic nature of the soil. The assumption can be made, says Rocque, that the soil potential ratings of those areas would be very, very low for building roads. In other words, it's a very severe situation. In the words of Rocque, "it doesn't mean you can't do it, but it just means the potential is greater for a problem."

Rocque warns that "Soil Conservation Service still recommends limiting soil disturbance to the minimum necessary, particularly access road construction. Other options, such as helicopters, snowmobile trails and ATVs are the ones that we recommend preferentially pursuing."

In response to a comment by Kenetech's consultant, Northrop, Devine & Tarbell, Inc., that over 600 miles of roads exist in the three townships already, Rocque provides quite a different interpretation of that fact. He points out that "though there may be 600 miles of roads in those townships, probably not very many of them are up in some of those elevations because there isn't merchantable timber up in those elevations. ...It is still advisable to limit the road building as much as possible because the potential on those fragile soils in that climate for erosion events is higher than it is in other areas or lower areas where you have less precipitation, less intense rain events, and different kind of soil types. They have done a good job of trying to address the concerns, but it's still a Commission policy to limit as much as possible any soil disturbance in that area."

Kenetech's rezoning application contains no detailed soil tests or site specific measures. Kenetech assumes that cryic conditions occur within the P-MA District portions of the project area, and has submitted standard erosion/sedimentation preventative and stabilization detail drawings for roads. Kenetech says it will apply these standard techniques to all soil disturbing activities within the P-MA District portions of the project area.

To deal with cryic soils within roadway areas, the proposal is to remove cryic soil horizons to non-organic glacial till, gravel, sand or bedrock. Then this is overlain with imported borrow and/or gravel. The soil removed has to be stockpiled or disposed of in an approved location.

In a letter to Rocque, Kenetech's consultant revised its original proposal, which had indicated a 20' width removal of topsoil, to indicate that "topsoil will be disturbed in the minimum corridor necessary to construct the road." This means no limit to topsoil disturbance. Kenetech's graphics illustrating typical cross-sections of road construction details show topsoil disturbance in widths which appear to be over 40 feet.

For an "upland permanent access



## Boundary Mountains Windpower Project Still On Hold

In ruling on Kenetech Windpower's proposal for the remote mountainous boundary region of the state, Maine's Land Use Regulatory Commission (LURC) must first decide whether to rezone the mountain tops from "protection" to "development" districts. The question for LURC is whether certain basic criteria for rezoning a protection district as set forth in 12 M.R.S.A. § 685-A(8)(B) are met. Is there "...substantial evidence that the change in districting will satisfy a demonstrated need in the community or area and will have no undue adverse impact on existing uses or resources...?" It's a strict standard and it's Kenetech's burden to provide the evidence. To date, Kenetech has been unable to meet the statutory criteria.

The project raises questions about the ability of mountainous soils to withstand the disruption of road construction and use. Fragile soil is only one of the project's major stumbling blocks. Lack of demonstrated need for the project, habitat loss and threat to birds also are problems.

Intervening environmental groups who support the project failed to examine the issue of soils. Testimony of Natural Resources Council of Maine (Nagusky): "... our board and our staff have reviewed this project at what I

would call a big picture level. We have not looked at the details of the proposed road design nor sedimentation and erosion control plans." Testimony of Conservation Law Foundation (Sosland): "The issues raised by our groups in the settlement discussions in agreement with the company are as Beth Nagusky said, big picture issues. We do not address some of the more detailed and complex issues such as soils and road siting, erosion, overall design."

Faced with a record that leads to the conclusion that the rezoning criteria cannot be met, Kenetech since last November has been pondering its next move. On February 14 the company in a letter to LURC formally acknowledged that the delay in processing the application has been at their behest, saying it will decide whether to ask for the record to be reopened for additional testimony. At LURC's March 15th meeting, Kenetech's Chris Herter indicated a decision was very likely imminent. Kenetech may be waiting for the appointment of a new LURC director or the replacement of retiring commissioners with new ones more receptive to the project.

—Pamela Prodan

## Creating Awareness of Soil

At the annual winter conference of Vermont's chapter of the Northeast Organic Farmers Association, one workshop centered on organic soil mixes for starting transplants. Discussion came around to the "s" word, vis-a-vis the sustainability of peat bogs. These yield, unsustainably, the sphagnum moss which gives germinating and potting mixes their absorbiveness and, according to one panelist, fungicidal protection. This same speaker did offer a suggestion for a peat substitute: forest duffs.

Those familiar with the gardening of Helen and Scott Nearing will know that they eschewed animal manures in composts because they disapproved of man's bondage of animals. The animals they did use to give zip to their composts were quite small; the Nearings collected microbially active forest duffs and added these to their compost piles and thence to the garden.

It is regrettable that the prevalent present day attitudes toward soil are much more cavalier. At this NOFA conference soils professor Fred Magdoff of the University of Vermont remarked on the immense fragility of forest soils: "Oh yes," he said to me in conversation, "even footprints in some instances will destroy them." Yet any traveler about today's countryside knows that soils are treated as so many heaps of sand, silt or clay, to be bulldozed, backhoed or compressed by heavy equipment. The general level of appreciation for the biological life of soils is quite low. Soil, we assume, is a renewable resource. It may be poisoned with chemicals, stripped of vegetation, torn up or packed down, yet it will always reward us with food and fiber.

Look for a healthy forest soil on your next trip along the highway. Is it under plantation spruce or pine? In a clearcut? In a high-graded woodlot? In a grown-up pasture? Our most common land uses are hostile to the life of soil. So too our treatment of the air and rain. A ginseng gatherer recently testified to the Vermont House Natural Resources Committee that she finds forest soils, even where not logged, becoming progressively poorer. Where once you could put "your arm in up to the elbow," soils are hardening. What is happening? Who bothers their heads about it when there is so much to watch on TV?

The soil research priorities which emerged from the 1993 conference on the Ecology of the Northern Forest suggest the enormity of what we do not know about forest soils. The findings shared by conference participants also suggest the need for more qualitative understanding of soil to be imparted through education. Knowledge of nutrient cycling and microscopic life needs to be part of common sense. One argument for small scale agriculture and forestry—and, indeed, the experience of wilderness—to form the center of cultural life is the opportunity for these to wed scientific knowledge in the individual with the kinds of intuitions that brought the Nearings, for instance, to use forest duffs to activate the life of their garden soils.

—Andrew Whittaker

road with dry side hill cut/fill section" with a maximum slope 1:1.5 [vertical:horizontal] for the finished cut grade, Kenetech says it will do the following: clear trees within 5 feet of the cut and stake down natural vegetation and root mat; trim, paint & cover exposed roots; secure unstable trees of diameter larger than 6 inches that are within 10 feet of the edge of the cut with cables and rebar pin anchors; seed & mulch, or provide erosion mat or graded stone erosion protection.

Rocque emphasized how important it is to intercept water and in short stretches send it across the road, whether through a waterbar, culvert or underdrain, and then discharge it in a sheet flow manner. If there is a concentrated flow it will cause an erosion problem with washed gullies, and the hydrology will not connect. If put back into a sheet flow the hydrology is connected and continuous. "Connecting the hydrology is going to be probably more significant than just removing that one strip of soil and putting in gravel."

A memo concerning a telephone conversation about revegetation with John Dickerson of the Soil Conservation Service in Syracuse, NY raises concerns about Kenetech's proposed steep slopes for cut grades. Dickerson maintains 1:3 slopes or flatter are ideal [this means about 15 percent]. While 1:1.5 slopes would significantly reduce the impacted area, vegetation could not be reliably established on 1:1.5 slopes. Dickerson ventured that if the face could be well consolidated or compacted and protected against erosion, it might work.

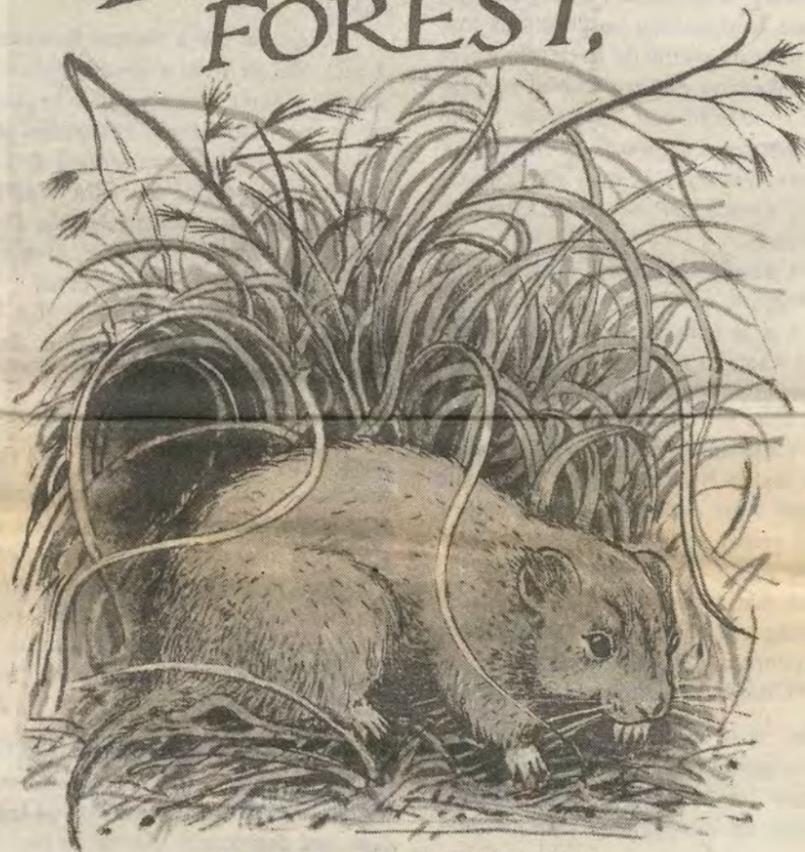
A memo about a telephone conversation with Rich Wilkinson, Sugarloaf USA's manager of trail maintenance and construction projects indicates that Sugarloaf's tote road has sections of sustained road grades of 18 percent and they have erosion problems. Wilkinson believes the problems are caused by no crowning and by sidecast banks. He thinks bulldozers are an erosional liability, because of their inability to accurately control road grades. He prefers excavators, which are more versatile and control road grades better. He says that squashberries are a problem on the mountain because equipment has crushed competing plants giving them a competitive advantage.

Rocque notes that some of the measures proposed by Kenetech would be deemed impractical to some people because they are very expensive. "It's going to require a lot of site specific measures and work and attention by the consultants...there isn't an awful lot of good research on building good permanent roads up in this area."

*Pamela Prodan is an attorney living in Wilton, Maine. She has an interest in energy issues as well as Northern Forest issues. She has participated in varying degrees in energy-related cases brought before the Maine Public Utilities Commission, the Maine Department of Environmental Protection and the Maine Land Use Regulatory Commission. She won the 1992 National Energy Law and Policy Institute prize for her article, "The Legal Framework for Hydro-Quebec Imports."*



I BELIEVE IN THE FOREST,



AND IN THE MEADOW,



AND IN THE NIGHT IN WHICH THE CORN GROWS.  
—THOREAU

# Corporate Front Groups~They're Everywhere

Carmelo Ruiz-Marrero

Beware! All across the US, a right-wing counter-offensive is being carried out by the corporations and conservative philanthropists to counter advances in civil rights, antitrust, consumer protection, workplace safety, and environmental regulations. Their weapons of choice are phony "citizens" groups created to advance the corporate agenda and displace the authentic public interest activist groups.

According to *Co-op America Quarterly* editor Rosemary Brown, "these corporate mouthpieces are working to convince legislators, the media, and the American people that they represent the public interest when it comes to issues like health, the economy, and especially the environment."

Let's take a look at some of them.

## \*National Wetlands Coalition.

This must be some sort of nature lovers' group formed to preserve wetlands, right? Think again. This group, formed by the law firm of **VanNess, Feldman & Curtis**, is composed of developers, utilities, and mining corporations that seek to open wetlands to development by weakening environmental regulations. Members include the *International Council of Shopping Centers* (Yes there is such an organization!), *Amoco*, *BP America*, *Chevron*, and *Exxon*.

\***Calorie Control Council.** This one wants to see us thin and slender. In fact, it is so concerned with our weight that it wants to stuff our foods with carcinogenic sweeteners. Members include *Coca Cola* and *Nutrasweet*.

\***Consumer Alert.** Is this one of those Ralph Nader consumer advocate groups? Well, not really. It is actually a front group (funded by *Anheuser-Busch*, *Exxon*, and *Phillip Morris*) that claims that asbestos, pesticides, global warming and acid rain don't really have much impact on public health.

\***Citizens Against Government Waste.** Now, how can someone *not* be against government waste? But these "citizens" are nothing more than a pro-business, pro-deregulation conservative

think tank formed by the chairman of *W.R. Grace & Co.* Their definition of wasteful government programs include government pensions.

\***US Council for Energy Awareness.** If you think uncritical support for nuclear energy is a form of energy awareness, you'll like this organization. Its board of directors has executives of *General Electric*, *Westinghouse*, *Bechtel* and *Prudential Securities*. This organization's members include *Rytheon*, *Martin Marietta*, *Price Waterhouse*, and *Goldman Sachs & Co.*

\***Global Climate Coalition.** An "environmental" group formed by associations of the world's worst atmospheric polluters, such as the *American Automobile Manufacturers Association*, the *American Mining Congress*, the *American Petroleum Institute*, and the *Chemical Manufacturers Association*.

\***Foundation for Research on Economics and the Environment.** With such a name, you'd think this is a respectable institution staffed by serious, balanced researchers. If so, then how come they advocate the exploitation of natural resources in national parks?

\***Citizens for a Sound Economy (CSE).** We all want a sound economy, but this group's idea of a sound economy is one where phone companies and all other industries are deregulated. It also formed part of the *USA\*NAFTA* coalition. Donors include *Amoco*, *Dow Chemical*, *General Electric*, *General Motors*, *Mobil*, and *Phillip Morris*.

CSE is the parent group of **Citizens for the Environment**. Talk about misleading names! These "free market environmentalists" say that recycling doesn't save forests, that packaging prevents waste, and that there's enough room for more landfills. Not surprisingly, it is funded by *Chevron*, *General Electric*, *General Motors*, *Phillip Morris* and *Union Carbide*. (Don't mistake CSE with *Americans for the Environment*, a group which works to expose the "wise use" movement)

\***National Legal Center for the Public Interest.** These "public interest" litigators fight against threats to freedom and democracy. As far as they're

concerned, these threats include hazardous waste laws, environmental regulations, and rent control statutes. They're also trying to prove that government regulations violate the fifth amendment.

Its board of directors includes big shot lawyer William Webster, who ran the FBI at the time of the assassination attempt against Judi Bari (in which she and Darryl Cherney were hurt), and then went on to direct the CIA. Other board members include right-wing conspiracy theorist and disinformant Arnaud de Borchgrave, who poses as a journalist for the Moonie-owned *Washington Times*, and top executives from *Coors*, *Dow Chemicals*, and *3M*.

\***Federalist Society.** This one prowls the nation's law schools, seeking to destroy what they call the "orthodox liberal ideology which advocates a centralized and uniform society." One of its founders, David MacIntosh, was executive director of Dan Quayle's Council on Competitiveness. Another founder, Stephen Calabresi, was an aide to that great friend of civil liberties, Ed Meese [Ed. note: Ronald Reagan's Attorney General].

\***Madison Center for Educational Affairs.** Gives "editorial support" to 75 right-wing college newspapers.

\***Committee for a Constructive Tomorrow.** In its fundraising literature, it warns that "there is an international effort underway in our schools to indoctrinate children with a dangerous green mentality." Its educational programs tout the benefits of nuclear power and agricultural chemicals. Funded generously by *Chevron*.

\***The American Council on Science and Health** wants to make us believe that "the presence of parts per million of dioxin or PCBs, the use of artificial sweeteners and food additives or the presence of Alar or minute pesticide residues in foods—play little or no known role in human disease"(!). They are also uncritical supporters of biotechnology and food irradiation. Not surprisingly, its funders include *American Cyanamid*, *Chevron*, *DuPont*, *Union Carbide*, *Pfizer* and *Dow Chemical*.

\***Citizen's Equal Rights Alliance.** An umbrella group of Native peoples'

worst enemies. Its Members include groups with openly racist agendas, like **Equal Rights for Everyone** and **Protect Americans' Rights and Resources**. *CERA's* goal is to get the federal government to take from Native Americans the few lands that they have and open them to logging, mining, and agribusiness. This group participated in the infamous **Multiple Use Strategy Conference** in Nevada.

**What do we do?** The activist groups **Public Citizen**, **The Wilderness Society**, **Essential Information**, and the **Citizens' Clearinghouse on Hazardous Waste** drew up a list of suggestions which includes:

- \* Request an annual report or list of contributors and track funding. Look for contributors from corporations, industries, and chambers of commerce.
- \* Ask for materials from the organization and analyze them. Read the fine print.
- \* Ask what legislation the organization supports or has helped pass.
- \* Attend a meeting of the organization.
- \* Consult groups you know and trust and ask what they know about the organization you are investigating.

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## Inventory

Continued from page 26

ation will damage a wetland or harm a listed plant or animal, arm yourself with facts. An inventory can also help defend any public lands where you suspect that critters or habitat are being mistreated.

Some people believe the newly-formed National Biological Survey (NBS) will inventory the entire country. However, the NBS is dogged by political problems and may not survive to meet our expectations. Also, the NBS will focus initially on public lands, preferring to dodge the issue of private property rights.

I guarantee that every town has at least one significant natural feature, whether it be a rare plant, an endangered animal, unique geology, an important wetland, or a remnant of "typical" vegetation. Some things may be gone for now, buried under asphalt or covered in condominiums, but they will return if we let them. Wildlands recovery should begin at home and spread outward.

## LITERATURE CITED

- Cornett, D. 1994. Using General Land Office survey notes in ecosystem mapping. *Wild Earth* Fall 1994.
- Kuchler, A. W. 1964. *Potential Natural Vegetation of the Conterminous United States*. *American Geographical Society*, New York. 472 p.

Brad Meiklejohn recently graduated from the University of Vermont's Field Naturalist Program. He now works for the Conservation Fund in Alaska, purchasing Grizzly habitat on Kodiak Island.



# Maine Woods Watch

by Jym St. Pierre



Michael Kellett



The Maine Woods is the largest tract of wildlands in the eastern United States. However, today this region is under siege. Maine Woods Watch is devoted to documenting the good, the bad, and the ugly in the Maine Woods today, with an emphasis on opportunities for citizen action to protect and restore the essence of the region, its wildness.

Like a Spring freshet, there is a flood of activity affecting the future of the Maine Woods. However, space for this column is limited this issue, so we suggest you pick up some good reads, hike to a sunny, dry spot in the forest, and enjoy yourself before the biodiversity explodes with the annual black fly hatches. Celebrate Earth Day as it was originally intended, by educating yourself on environmental issues. Skip the self-serving Earth Day drivel flooding the press and the airwaves right now. Try some of these pieces instead:

\***Bill McKibben**, "An Explosion In Green," *The Atlantic Monthly*, April 1995, \$2.95; the article has also been serialized in the *Maine Sunday Telegram* in April. The guy who told us about *The End of Nature* as a force independent of human interference tells here about the resurgence of the forest near the Atlantic, as well as about the

insurgence of a new wave of conservationists. Names of the heroes will sound familiar to *Forum* readers.

\***Reed Noss and Allen Cooperrider**, *Saving Nature's Legacy: Protecting and Restoring Biodiversity*. Washington, DC: Island Press, 1994, paperback \$27.50. After reading McKibben's article you will want to become part of the new wave of heroes leading the way to a sustaining future for the Northern Forest. This book describes how and why from a conservation biology perspective.

\***William Alverson, Walter Kuhlman, and Donald Waller**, *Wild Forests: Conservation Biology and Public Policy*. Washington, DC: Island Press, 1994, paperback \$25.95. This book marries science and public policy to describe how and why to restore natural ecological processes over large areas and to protect biodiversity with minimal human management.

\***Herb Hammond**, *Seeing the Forest Among the Trees: The Case for Holistic Forest Use*. Vancouver, B.C.: Polestar Press Ltd., 1991, \$39.95. Because it is published in Canada this one is a bit tough to obtain, but it is worth the extra trouble to special order.

Hammond, a forester, defines how more foresters ought to routinely interact with the forest, namely with an ecological rather than a silvicultural orientation. Read *Saving Nature's Legacy* to learn about doing set asides correctly. Read *Wild Forests* to learn how we ought to treat our national forests for the broad public good. Read *Seeing the Forest* to learn how caring for the forest can work at the community level.

\***Bernd Heinrich**, *A Year in the Maine Woods*. Reading MA: Addison-Wesley Pub. Co., 1994, hardback \$22.00; **Christopher Kenneally**, "Inland Bound," *Down East*, April 1995. Heinrich is Thoreau reincarnated. Read his latest book about hanging out for a while in the western Maine mountains for some insights on personal transformation. Then read Kenneally's article to find out how you can go on your own trip in the outback toward inner enlightenment.

\***Andrew Vietze**, "The River Mild," *Down East*, April 1995, \$3.50; **Nathaniel Reade**, "The River Wild," *AMC Outdoors*, March 1995. Go with the flow, Vietze tells about quiet water on the Saco. Reade tells about quick water on the St. John.

\***Chris Klyza and Steve Trombulak** (eds.), *The Future of the Northern Forest*. Hanover, NH: University Press of New England, 1994, \$39.50; **David Dobbs and Richard Ober**, *The Northern Forest*. White River Junction, VT: Chelsea Green, 1995, hardcover \$23.00. This recommended reading list ends where it started, with a peek at how the woods in our own corner of the world are changing and where we are headed. Klyza and Trombulak (see review in *Forum*, vol. 3 #3, p. 13) provide a somewhat academic compilation of views from 16 foresters, public officials, conservationists, economists, Native Americans, and scientists who speak to the ecology, economy, ethics, and politics of the Gordian knot of opportunities the Northern Forest presents in the 1990s. Dobbs and Ober present the distillation of over two years and more than fifty interviews as a series of profiles of people who live and work in one of America's last great forests. Both books in this unmatched set end cautiously upbeat. Write your own next chapter.

Jym St. Pierre, *Restore: The North Woods*, 7 North Chestnut Street, Augusta, ME 04330 (207) 626-5635.

## Parks & People

Continued from page 31

trolled by distant bureaucracies for the sake of people from away at the expense of local communities. During the Northern Forest debates, many Adirondack residents expressed a similar sense of disenfranchisement. When local communities are globally-, rather than ecosystem-based, and local citizens are prone to move every seven years, however, "local control" may not necessarily lead to the same results as Dasmann envisions. Still, local populations deserve to have a stake in control and a share in input and should benefit, rather than be harmed, by the activities nearby. If new park proposals do not take account of the needs of local inhabitants, their chance of success is greatly diminished.

### Inside/Outside

Dasmann is right on target for our area, or any area, when he points out that trying to preserve "nature" in parks but exploiting and degrading it outside the boundaries is a dubious long-term strategy. What needs to be restored is not just the land within the boundaries of a park, but outside it as well.

We have developed a society where home, work, shopping, recreation, and nature are all in compartments, separated by roads and accessible by cars. Nature itself, when not subject to mining as a resource (outside the parks) is treated as a green backdrop for "adventures" (inside the parks) using colorful, synthetic, high-tech equipment and clothing. The compartments where we live, shop, and work have been reduced to uglified landscapes full of atrocious architecture and catering more to motor vehicles than humans on foot. Because we do not perceive these compartments as "nature" ("nature" is in the park compartment), it acceptable to pave it all over and cover it with advertisements for consumer goods, without which we will be incomplete. It is no wonder people have the urge to leave.

"I cannot see," says Dasmann, "much hope for the future of either parks or people, unless some of the old sense of belonging to the natural world, of being part of nature, and not hostile to it, is restored." To save the remaining beautiful wild places on earth, we must make the places where we live beautiful, and livable. We must develop more of a connection to place. We must become the ecosystem people.

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# The River Otter



by Rob Baldwin

Along the birm that borders the shore of the lake at Lake Carmi State Park in Northwestern Vermont, there are places river otters seem to favor. These areas are marked by piles of "spraint" (otter feces), and smoothed out troughs called "slides". Of all the wildlife that uses the state park for food, dens, and mates, the otter, to me, is the most exotic. Secretive, rare, social, and uniquely adapted to aquatic life, the presence of otters is a reassuring sign that real wilderness is alive and well.

Late one winter, I saw track patterns of a River otter along the edge of the frozen lake. Sometimes these tracks were one hundred yards or more inshore. The characteristic track pattern is several sets of paired prints, followed by belly slides that look like the trough made by making the head of a snowman. The trails ranged across the ice, up the banks, through the bog, and along the railroad bed.

I tried to reconstruct their activities by following the trails, but I had never seen the animals that made them. Then one day, during a snow storm, Sylvie (our Lab/Newfie) and I were walking down the road towards the boat ramp. Motion attracted my attention to a dark object fifty feet away. It was a large otter. Its dark, undulating form seemed to swim through the driving wet flakes. It was coming from the frozen lake, and turned onto the railroad toward us. I grabbed Sylvie as her muscles tensed. The otter loped across the road ten feet in front of us, slid down a bank, turned back to the lake, and entered a stand of white cedar. The slide seemed effortless—it traveled almost twenty feet on

its belly. While some of these slides may be for "fun", after seeing one so closely, I am sure that this is an efficient mode of travel for River otters. With their relatively short legs and smooth, oily fur, sliding is fast, and makes sense.

The North American River otter, known in scientific circles as *Lutra canadensis*, is a member of the family that includes mink, fisher, weasels, and skunks. They are a low-slung and lithe-bodied bunch. Although cumbersome on land, the otter has put this long and tubular body plan to use under water and pursues fish, crayfish, and other aquatic animals. Other adaptations help the River otter succeed as an aquatic predator. They have large, webbed feet and a fat, flattened tail. When swimming slowly at the surface otters "dog paddle", and the feet are the main source of power. When swimming underwater, the whole body undulates and the tail provides most of the propulsion. Otters swim, on the average, about two miles per hour.

Staying warm in cold water is a problem that otters counter by having a thick, oily coat of fur, as well as a circulatory system that reduces heat loss from their limbs and tail. Being a mammal, otters do not breathe underwater. They must surface and then hold their breath, just like we do. They do have the ability to hold more oxygen in their blood, and have larger lungs relative to their body size than animals that live on land. Although the otter is capable of staying underwater for several minutes, the majority of dives are between ten and thirty seconds in length.

Weasels, fisher, and skunks, members of the otter's family that live on land, depend on sense of smell to locate

their prey. Otters do have a keen sense of smell, but it is mostly used for communicating through scent left on land. In the water, the nose does not work for locating prey. To compensate, River otters have developed other senses to a high degree. Most important are touch and vision. Otters have highly sensitive forepaws and long, sensitive facial "whiskers" which enable them to make quick and accurate assessments of the location of prey in the moments before making a capture. Good eyesight enables them to close in from a distance; once close, touch takes over.

After a successful hunt, the catch is hauled onto land and there the river otter uses its forepaws, flattened teeth, and strong jaws to "process" the prey. Crayfish are dismembered and the exoskeletons crushed. Crayfish remains are plainly visible in the piles of spraint at the park. Fish are torn apart, chewed and swallowed. Fish scales can also be seen in the scat piles.

River otters have been observed to have favorite locations to deposit their feces. Many otters in a given area will visit the same places on land to leave spraint. Why? Studies have shown that spraints are coated with oily secretions, and that the chemical components of the secretions are unique for individual otters. Otters visit the same locations to deposit spraints and their smells in order to pass information about themselves on to other otters and to learn about which individual otters are in the area, and possibly their sex, age, and relationship. These "spraint stations" are like message boards, and are usually in a conspicuous place, easily found from the water. The spraint stations I have found were at the base of a large

white pine, and on some large rocks.

Otters have had a rough time, and are only recently coming back to some rivers, streams, and lakes. For hundreds of years the fur has been prized for its luxurious warmth, the same quality that makes it possible for otters to live in cold waters. Development along waterways disrupts important features such as spraint stations and den sites. Water pollution kills prey and damages otter fur. Improved environmental laws and careful management of otter populations by Vermont's wildlife officials has helped the otter's comeback.

One early summer morning, a camper came up to me with gleaming eyes. He had been on the lake in a canoe very early, and had spotted an otter swimming between two camping areas in the park. The "V"-shaped wake had come from the direction of the bog, according to the canoeist. He was so impressed that he mentioned the incident to me, Betty my wife, and the crew several times over the next few days. This proves that there is value in keeping rare and beautiful animals around, whatever the cost. Beyond the scientific value, and the needs of hunters and trappers, there is the simple delight of early morning sightings. It is why people camp; it's why I do.

Rob Baldwin was co-manager, with his wife Betty, of Lake Carmi State Park in Northwestern Vermont. He wrote this article, and others on the natural history of the park, for the *County Courier of Enosburg Falls*. The Baldwins are now on the faculty of the National Audubon Expedition Institute, of Belfast, Maine.